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See Allen, Bull. Amer. Mus. Nat. Hist.,
vol. 7, pp. 179-192. June 20, 1895.

THE
ANIMAL KINGDOM,
OR
ZOOLOGICAL SYSTEM,

OF THE CELEBRATED
SIR CHARLES LINNÆUS.

C L A S S I.
M A M M A L I A:

CONTAINING
A COMPLETE SYSTEMATIC DESCRIPTION, ARRANGEMENT, AND NOMENCLATURE,
OF ALL THE KNOWN SPECIES AND VARIETIES OF THE MAMMALIA,
OR ANIMALS WHICH GIVE SUCK TO THEIR YOUNG;

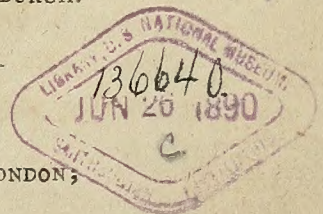
BEING A TRANSLATION OF THAT PART OF THE
SYSTEMA NATURÆ,
AS LATELY PUBLISHED, WITH GREAT IMPROVEMENTS,
(BY PROFESSOR GMELIN OF GOETTINGEN.)

TOGETHER WITH
NUMEROUS ADDITIONS FROM MORE RECENT ZOOLOGICAL WRITERS,
AND ILLUSTRATED WITH COPPERPLATES:

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SCIENCE

TO THE

P U B L I C

TO study the works of Creation with intelligence, is the exclusive privilege of man, and highly exalts his dignity above that of all other animated beings. When he looks around among created objects, he is presented with innumerable instances of the most admirable contrivance in the structure of every being, for fulfilling the wisest purposes. Wisdom, Power, and Goodness, are manifested in the form and destination of every natural body. How then can man be more honourably employed than in studying the works of his Creator? Every means, therefore, which can facilitate the acquisition of this vast and noble object of human knowledge, must certainly be conducive to promote the most rational happiness of mankind.

FOR the attainment of this Philosophy of Nature, it is necessary to possess some knowledge of the objects of creation, as they are connected with each other in one vast chain of being, and as naturally arranged under greater and lesser links of mutual relation. Without an acquaintance with these, the pleasing and highly important
b. study

study of Nature, as a great Science, must, if not utterly impossible, be extremely difficult and embarrassing. Method and arrangement, like the clew of Ariadne, serve to lead the otherwise wandering mind through the devious mazes of Nature's labyrinth. Hence, in all ages, numerous attempts have been made to reduce the apparently endless confusion of natural bodies, under such a system of arrangement, description, and nomenclature, as might render the acquirement of these general views as easy and as familiar as possible.

It is not necessary to give any comparative view of the merits of the different systems which have been devised for answering this useful purpose; as it will be readily granted, that the palm of excellence has been almost universally allowed, by the learned of every country in Europe, to the arrangement of the great LINNÆUS, as contained in his justly celebrated work the *Systema Naturae*. To the genius and industry of that illustrious Naturalist, the world is indebted for the improvement of Natural History; and, to his indefatigable zeal, and example, the astonishing progress which this branch of knowledge has lately made is principally owing. If not the father of the science, he may justly be held as its second founder; and had he, like Aristotle, been aided by the power and riches of an Alexander, it is hardly possible to conceive to what degree of perfection our knowledge of Nature might by this time have advanced.

As his admirable work, which has already gone through thirteen editions, is in the Latin language, it is shut up from many who might derive great pleasure and advantage, from prosecuting the study of Nature. This translation, therefore, of a work of such general importance, and which contains so much interesting information, will not, it is hoped, be deemed an unprofitable employment. By this publication, a vast and fertile field of science will be opened to many who are now precluded from the cultivation of Natural History,

History, merely by the language in which its principles are delivered. To the intelligent inhabitants of the country, and to those who are employed, either at home or abroad, in the pursuits of commerce, navigation, or agriculture, this science will open a new and never failing source of rational amusement. Every walk in the woods and fields, affording an infinite fund of agreeable relaxation from professional business, may thus be employed in pleasing study; and that time, which now too often drags heavily on with those who are idle, more from want of an object of rational employment than from inclination, may be filled up with a constant and easy investigation of the beauties of creation. To many persons, this study may be rendered an object of pecuniary advantage, by enabling them to select and preserve the more valuable specimens, which are in great request, and bear a high price among collectors of cabinets. Even the ladies may be induced, from the interesting nature of the study, to prefer the pursuit of Natural History to those frivolous publications, which have too often a hurtful, and never any beneficial tendency.

ONE part of this great System of Nature, the arrangement, description, and nomenclature of vegetables, has already been most laudably given to the public in English by the Litchfield Botanical Society, and with deserved applause. It is now proposed to translate the ANIMAL SYSTEM of the same celebrated author, which arranges, describes, and names the whole known Species and Varieties of *Quadrupeds, Birds, Amphibious animals, Reptiles, Serpents, Fishes, Insects, and Worms*. By this means, the mere English reader will be enabled to contemplate, with facility and pleasure, the numberless beauties which Nature every where presents to the attentive observer. The descriptions given by Linnæus are so admirably adapted to the subject, and are expressed in such clear and distinct terms, that any person, by a very small degree of attention, may discover

the name, place, habits, and uses of any animal that occurs, either in cabinets or collections, or in their native haunts; and may at once ascertain whether the specimen presented, be already known, or a non-descript species or variety.

THE translator was particularly induced to undertake this edition, by a recommendation from very respectable literary authority, the Authors of the Monthly Review, who, in the November number of the year 1787, warmly advise the publication of a Zoological Synopsis in English: For this purpose, nothing can be better adapted than the work now offered to the public, at least so far as the merit of the original is concerned; of the present edition it becomes its editor and translator to speak more modestly. The translation has been, and shall continue to be, carried on with the utmost possible attention to accuracy and fidelity of version, and to uniformity and perspicuity of language. He has shunned as much as the nature of the subject would allow, the employment of technical terms, having yet endeavoured to use English words in so precise and definite a manner as to serve every useful purpose of more recondite technical expressions. It is taken from the last edition of the *Systema Naturæ* of Linnæus, as lately published, by the learned Professor Gmelin of the University of Goettingen; and has received large and numerous additions, which have been collected by the translator, from the writings of such Zoologists, Voyagers, and Travellers, as had not fallen under the observation, either of the great Linnæus, or of his excellent successor.

As the publication of so very extensive a work must necessarily be attended with considerable expence, the mode of subscription has been adopted; and, encouraged by a highly respectable list of subscribers, the translator has ventured to publish this *First half-volume* of the LINNÆAN SYSTEM of ZOOLOGY. He trusts
greatly

greatly to the intrinsic value of the original work, when it shall, by means of this translation, become more generally known, for support in carrying through his arduous undertaking. By this, as a specimen, the public opinion may be guided, respecting the merit of the whole work, which in the original is undoubted; and a judgment may be formed of the fidelity with which it has been translated, and of the value and propriety of the numerous additions that have been made to it in this edition.

A VERY cursory inspection will shew at once, to such readers as are in any degree acquainted with the original, that what is now submitted to the public, is not, by any means, a mere translation; for, although every thing that is contained in Dr Gmelin's edition of the *Systema Naturae* be retained with the most scrupulous exactness, and consequently a great deal more than is in any of the *Linnaean editions*, very large additions have been made to the present translation, from zoological writers of eminence, whose works the last learned editor had then no opportunity to consult. How far these additions may be ultimately found to have improved the work, it belongs to others to discover; all that can, with any propriety, be said on this subject, is, that for the purposes of improvement alone, they have most sedulously been employed. Though the translator does not presume to have executed his task in such a manner, as even completely to satisfy his own ideas of a perfect zoological system, he can with justice assert, that neither labour nor expence have been withheld, to render it as free from faults, as the nature of the subject, and the present state of zoological knowledge, so far as it has reached him, would admit. Having earnestly endeavoured to do justice to this important branch of science, and faithfully to execute his duty as editor and translator, he humbly ventures, with some degree of confidence, to claim the patronage of the public, to a work in a great measure national, as it is intended to make the systematic part of

NATURAL

NATURAL HISTORY, through the whole ANIMAL KINGDOM, speak the language of Britain.

ACCORDING to the reception which this specimen of the subject, and of the manner of its execution, may meet with from a discerning public, the editor will be directed whether to proceed in the publication, or reluctantly to desist; for, from the great expence which unavoidably attends the production of so extensive a work, it is evidently impossible, prudently to go on, without a subscription that shall be fully adequate to indemnify against all risk of loss: He is, however, determined to proceed with the work, should a sufficient number of subscribers appear, barely to defray the cost of publication, even if no views of profit should arise from the success of the subscription. At any rate, however, the class of Mammalia shall be completed, that, even if the work should not eventually be continued, this first part may not remain a mutilated and useless fragment.

SINCE the original prospectus and proposals were published, in May 1791, some alterations of the plan of the work have been adopted: These are partly owing to the vastly larger additional information, which has been derived from various sources, than there was any reason at first to have expected; and they partly proceed from the advice of several respectable subscribers, and valued literary friends. In consequence of the former it is now found, that the work will necessarily extend, when completed, to four volumes; and, by the latter, the editor has been induced to add a series of accurate engravings, which have been executed by an excellent artist. These will be found highly useful, for illustrating the systematic method of the celebrated Linnæus, and for conveying more perfect ideas, of several rare and curious animals, than any verbal description could possibly communicate. As this latter addition greatly enhances.

enhances the expence of publication, it has been found necessary to lessen a little the originally proposed size of the volumes, though in a degree that is far from being sufficient to compensate for the additional expence arising from the engravings; and, purposely to diminish, as much as possible, the magnitude of the work, a smaller type, and a much larger page, have been employed, than are ordinarily used in works of this kind.

THE conditions, as now finally settled, are these:—The work, as nearly as can be calculated, will consist of four volumes; to be published in successive half volumes, as fast as the necessary attention to correctness will allow:—Each half volume will be illustrated with several plates, and will be delivered in boards, to subscribers, at half a guinea:—A general introduction, giving a view of the subject, and of the various sources from which the additional information has been derived, together with proper title pages, will be delivered along with the last-half volume; and copious indexes will be affixed to each class.

As, from the uncommon nature of the mechanical part of the work, and the yet uncertain extent of the additions, in its present unfinished state, it has been found impossible to divide it properly, the subscribers are requested not to bind up the several parts, till the whole is completed, when proper instructions will be given for the bookbinders.

THOSE who are disposed to give their countenance and patronage to this undertaking, are requested to transmit their orders for subscription, to the editor, as soon as possible, with directions how their copies are to be forwarded; and booksellers, or others, in possession of subscriptions, are entreated to do the same, that no delay may occur in taking the necessary steps for carrying on the remaining parts
of

of this extensive work, with all the despatch that is consistent with the accuracy and material improvement which have been adopted, as rules for conducting every part of the intended plan.

EDINBURGH, }
February 1792. }

SYSTEMATIC

P R E F A C E

BY DR G M E L I N.

TH E transcendent merits of the illustrious Author of the following Work, and his high fame as the Restorer and Reformer of the Science of Natural History, notwithstanding the malevolent opposition, and many violent attacks, of numerous detractors, are so fully known and acknowledged by the public, as to render any studied panegyric on him or his writings totally superfluous. Even the novice in Natural History must be fully aware of the many and great advantages he derives from a Catalogue of all the known natural objects, properly arranged into Classes, Orders, and Genera; at one glance, with such assistance, he is immediately led to the particular subject he is in quest of; while, on the contrary, he must necessarily spend much time and labour, if he is obliged to search amid the almost inextricable confusion of numerous and verbose descriptions which are dispersed through the voluminous writings of unsystematic Naturalists. Although this facility to the student be considered as the principal excellence in the labours of the great Linnaeus, by such as have chosen to stigmatise him with the contemptuous title of a mere Nomenclator, it is by no means the chief merit of his wonderful work; what really constitutes its great supereminence, and which can be claimed by no other author, is, that it contains descriptions of all the natural objects which were in any degree known at

the time of its publication. These descriptions were mostly derived from the accurate and personal observations of the sagacious and indefatigable author, or from the communications of his numerous disciples, who have travelled over various parts of the world in search of natural knowledge; some of them, indeed, are collected either from the works of authors of acknowledged reputation, or from the private communications of respectable correspondents.

Human ingenuity is not expected to produce any work that is completely perfect: The field of science which Linnaeus had to explore is immense; and it was not to be supposed that, from such a survey, the traveller, however enlightened and industrious, should return with perfect descriptions of all its parts; he is not therefore justly to be blamed for having sometimes been mistaken, or occasionally deceived by erroneous information; neither is he too hastily to be condemned for having sometimes given imperfect characters of the genera and species, or for having failed in a few instances to distinguish, with sufficient accuracy, the limits between the species and varieties of natural productions. Indeed there are scarcely two writers who have agreed on the distinction between what should be considered as the characters of specific difference, and such marks of discrimination as ought to belong only to difference of variety. We should not certainly condemn, as ignorant, that architect who, having laid firmly the foundation of an admirably contrived edifice, almost of infinite magnitude and variety in the number, dispositions, and uses of its parts; and who, having raised the superstructure, even in his own lifetime, worthy of the wonder and admiration of the world, should leave to posterity a few small parts yet unfinished, or the possibility of some additions, alterations, and improvements, which future wants, and increasing knowledge, might render necessary: We certainly ought rather to admire the talents and ingenuity which could construct the original edifice in such a manner as to suffer

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fer these necessary additions, and improvements, without injuring its permanency, or symmetry. Let it not, therefore, be perceived that the immortal author wandered from the province allotted to his talents when he undertook this great work, and accomplished it so far as the state of human knowledge would allow. His greatest enemies may be silenced by this consideration, that such alterations, additions, and improvements, as the SYSTEM OF NATURE has hitherto required, have been made by the disciples of that great master, instructed almost for the express purpose of carrying forward and completing his arduous undertaking.

Many years * have now elapsed since the twelfth edition of this work was given to the public by its immortal author; and the joint labours of the many unwearied inquirers into nature which have appeared since that period, both of his disciples and others, have greatly enlarged our stock of knowledge, by making us acquainted with numerous facts and objects before unknown, and by increasing and correcting our knowledge of such as were already known, though imperfectly. Hence it is evident that, when these are referred to their proper places in the general system, it must necessarily become both more extended, and more comprehensive than in its former state. I trust, therefore, from these considerations that, in preparing and publishing this new edition, I have been employed usefully and agreeably to the public, as well as satisfactorily to the booksellers, who have long found that a new edition of the Linnaean system was most anxiously solicited by their employers.

In this edition the original work is not materially changed in its general plan; though some particular parts have undergone a few
A 2 alterations,

* Dr Gmelin says more than four lustres; the twelfth, or last Linnaean edition of the *Systema Naturae* was published in 1766, and that of Gmelin in 1788, making an interval of twenty-two years..

alterations, perhaps immaterial in themselves, but which the increased state of our knowledge on the subject seemed to render necessary: It is enlarged by inserting, in their proper places, such genera and species as have been lately discovered: It is enriched by the addition of many accurate descriptions of new objects, which have been observed by later naturalists either for the first time, or with greater accuracy than formerly: It is augmented with additional synonyms from the works of several authors, which had either not occurred to the illustrious Linnaeus, or which have been published since his time: And, finally, the whole is corrected by means of the latest communications from respectable observers.

In the prosecution of this arduous undertaking, I have selected and arranged, with great attention, all that appeared subservient to my views of improvement, from the great collection of books with which the royal munificence of our present Sovereign, the King of Britain and Elector of Hanover, has enriched the Library of the University of Goetingen; and I have been greatly assisted in this labour by the gentlemen who have the direction of that establishment.

If I have any merit in the execution of this work, it is chiefly to be attributed to the assistance I have derived from the works of Schreber, Pennant, and particularly Erxleben, with regard to the class of Mammalia; to Latham, in the class of Birds; to Fabricius and Goetz, in the Insects; to Schroeter, in Shells; and to Muller, for the other Worms: For additions, alterations, and improvements in the Vegetable Kingdom I am greatly indebted to the younger Linnaeus, and in a very eminent degree to Murray my illustrious coadjutor in this work: In the Mineral Kingdom, I have largely profited by the labours of Cronstedt, by those of his commentator Veltheim, and by the works of Gerhard, Kirwan, and Bergman.

The

The following work, therefore, contains a Systematic Catalogue and description, not only of such objects as were known to the illustrious Linnaeus, but likewise of all those which have been discovered since his death by the many excellent disciples * which were trained under his learned instruction, and formed by his great example; and of every thing that has been observed by other great naturalists †, who, though not favoured with the instructions of that great master of this science, have followed his footsteps, and those of his worthy scholars. Nor must those writers ‡ be passed over in silence who, by their strictures and invectives, have endeavoured to depreciate the immortal labours of our illustrious author; even from their works I have derived information which has contributed toward the perfection of this edition.

But, after all the pains that have been taken, I am far from supposing that the present edition is so perfect as not to require many corrections, amendments, and additions, from the labours of my contemporaries,

* As Falk, Solander, Dryander, Forkahl, the two Fabricii, Muller, Brunnich, Bjerckandr, Retz, Rothboel, Schreber, Murray, Ferber, Pajkuhl, &c.

† Pallas, the Forsters father and son, Jacquin, Sonnerat, Scopoli, Lesk, S. G. Gmelin, Lepechin, Georgi, Hablizl, Guldenstaedt, Koelreuter, Gaertner, Houtujn, Storr, Bowles, Molina, Sestini, Cetti, Count de Borch, Dolomieu, Fortis, Andrea, Schranck, the two Hermanns, Caroso, Gilies, Clavigero, Bancroft, Aublet, Merrem, Gowan, Gottwald, Zimmerman, Walbaum, Bloch, Goetz, Werner, Batsch, Broussonet, Meidinger, Laicharting, Bergstraeffer, Schaller, Fueslin, Knox, Herbst, Cramer, Drury, Seppi, Stoll, Schaeffer, Harreri, Geofroy, Fourcroy, Chemnitz, Martin, Walch, Spengler, Oeder, Weifs, Weber, J. Miller, Schmiedel, Gifek, Roth, F. Hoffmann, Hedwig, Curtis, l'Heritier, Gloxin, Sage, Monnet, Burtin, Saussure, Voigt, Bruckmann, Giraud-Soulavie, Genfan, Pine, Abildgaard, Palafso, Peirouse, Wulsen, Klipstein, Trebra, Dietrich, Count Rafounowski, and others.

‡ Particularly the Count de Buffon, Adanson, Camper, Laurence, Hacquet, the anonymous author assuming the name of Medicus, and others.

temporaries, and from the observations of my successors in the pleasing employment of cultivating the science of Natural History; for it must be evident to such as have maturely considered its particular parts and divisions, that our science is still far removed from a state of perfection. The difficulty of investigating permanently distinctive marks for discriminating natural bodies from each other, must be evident to every inquirer into the subject: One great cause of this difficulty arises from the luxuriant variety which, as regulated or induced by various circumstances, nature has employed in giving colours to animals; these suffer variations from the separate or concurrent effects of many causes; such as, whether the animals happen to be in a wild or domestick state, or varied by the intermixture of nearly allied kinds, producing what are called *hybrid races*, or altered by the influence of different climates. At the same time, it is well known, in distinguishing the species of many kinds of animals, particularly Birds, that there are no other marks of discrimination to be found except what are derived from difference of colour; while it unfortunately happens that the same species are apt to put on different appearances, and to be clothed in different colours, at different times of the year; according as they are either wild or tame; in various stages of their life; in the different sexes; as they happen to feed on different foods; owing to the particular climates which they inhabit; and from various other circumstances. It is likewise obvious that many animals and vegetables, especially of marine production, have not hitherto been accurately observed through all their changes of age and sex; or have only been described or pictured from dead specimens, either dried, or stuffed, or preserved in spirits, or salted, or distorted and even maimed by various means, either accidental, or intentionally, for the purposes of deceit; this last is most evident in shells, which are frequently rendered colourless, or are otherwise altered from their natural appearance.

While

While this edition was at press, some information has been obtained, by which it might have been amended in some instances, and augmented in others. Thus, Camper, the greatest comparative anatomist of the age, having lately an opportunity to dissect the *Siren* *, has discovered that, on each side of the head, it is furnished with three true gills, separated from each other by membranes having tooth like appendages; that the mouth is armed with strong and firmly planted teeth; that the heart has only one ventricle; and that the abdomen is filled with very long and capacious intestines: From all these circumstances, he concludes that this animal ought to be considered as a fish of the order *Branchiostegi*; while in other respects it is more nearly allied to the genus *Murena*, of the order *Apodes*; although it differs materially from the other species of that genus, by having only three notched bones in the gills, and from the pectoral fins being each divided into four finger-like appendages.

Two apparently new species of fishes, frequenting the shores of the ocean near Bahus, have lately been discovered, and described in the Stockholm Transactions, Vol. xii. 1st quarter, No. 9. One of these, which was found at Khuedesholm, is by Ruthensparr, named *Euprafes*; it is a species of *Gobius*, about an inch long, and spotted with black, having a distinct black spot on each side at the base of the tail; the second dorsal fin has eight pointed, and eleven blunt rays; the first dorsal fin seven rays; the pectoral fins fifteen rays each; the ventral fins, which are united, have eight rays; the anal fin eight rays; and the tail twelve: The other, which was found at Kyrkefund, is a species of *Cottus*, named *Bubalis*; it is brown on the back, and has a white belly; it is smaller than the *Cottus scorpius*, or feather-lasher; has a rough thorny head provided with two horns; the

* The *Siren-lacertina* of the Linnaean, and *Murena Siren* of the present edition: This animal, which lives in muddy places and feeds on serpents, was lately described by Ellis in the Philosophical Transactions, Vol. lvi. 189.

the membrane covering the gills has six rays; the first dorsal fin eight; the second dorsal thirteen; the pectoral fins fifteen each; the ventrals four each; the anal eight; and the tail ten rays.

A new species of Ape has likewise been lately discovered, and of which a particular description may speedily be expected from the pen of the celebrated Daubenton; this animal is said to resemble mankind more nearly than any formerly known species, and has received the name of *Simia nasalis*, from the elegant figure of its nose.

GOETTINGEN, }
March 16. 1788. }

J. FRID. GMELIN.

S.Æ R.Æ M.TIS SUMMÆ FIDEI VIRO,
CELSISSIMO ILLUSTRISSIMOQUE
C O M I T I
D.NO C A R. G. T E S S I N.

REGIS REGNIQUE SUIOGOTHICI SENATORI,
REGIÆ CANCELLARIÆ PRÆSIDI,
AD AULAM REGIARUM CELSITUDINUM
SUPREMO MARESCHALLO,
EDUCATIONI SEREN. PRINC. GUSTAVI PRÆFECTO,
CANCELLARIO ACADEMIÆ ABOENSIS,
ORDINIS S.Æ R.Æ MAJ. SERAPH. EQUITI AURATO ET COMMENDATORI,
EQUITI AURATO DE AQUILA NIGRA, NEC NON OMNIUM
S.Æ R.Æ MAJ. SUECICÆ ORDINUM CANCELLARIO,
S A C R U M.

CUM quis auctor speret se apud posteros gratiam habere, et posse secum duratura nomina educere, AUCTORI meae fortunae Libellum ultimo nunc offero.

ILLE me, peregrinum in patria, reducem excepit;

ILLE mihi stipendium ab ordinibus Regni expetiit;

ILLE mihi spartam Medici classici procuravit,

ILLE mihi Munus, quo fungor, conciliavit;

ILLE mihi Titulum, quo distinguor, paravit;

ILLE me ad Serenissimos Reges introduxit;

ILLE me cuso Numismate posteritati commendavit;

ILLE *meas errare boves, ut cernis, et ipsum*

ludere quae vellem calamo permisit agresti;

quare

cana prius gelido defint absinthia ponto,

quam nostro illius labatur pectore vultus.

TANTI MÆCENATIS

Upsalæ 1766,
d. 24. Maii.

Cultor devotissimus,

C. a L I N N É.

O LORD,

*How manifold are thy works! in wisdom hast thou made them all:
The earth is full of thy riches.----PSALM CIV. 24.*

*Great is our GOD, and great is his power,
And his power is not to be fathomed.*

L I N N Æ A N

I N T R O D U C T I O N.

MAN, when he enters on the theatre of this world, naturally inquires, Who he is; whence he comes; whether he is bound; for what purpose he exists; and, by what bounteous means he is preserved? He finds himself descended from the ancestry of creation; he looks towards the enjoyment of a blessed immortality; he should employ himself while here, in contemplating the wonders of Nature, and ought, in humble gratitude, to acknowledge the continually supporting arm of Providence. Curiosity is natural to man, in common with the rest of animals: These feast, and amuse themselves; they engender, take rest when weary, and provide convenient habitations according to their kinds; they study the preservation and support of their young, and exert their talents in providing for their own safety; they enjoy the faculties of the bodily senses, and are capable of several mental perceptions. But Man, more noble in his nature, and far superior to all other animals in the faculties of the mind, is possessed of infinitely greater capacity for observing and inquiring into those things which lie within the sphere of his intelligence; from these he is enabled to draw much juster inferences, through the powers of reason; and his exclusive and inestimable privilege is, that from all these he is led humbly to admire the infinite perfection which is every where discoverable in the works of the allwise Creator.

How despicable a being were man, did he not raise his thoughts above those things which are merely human! Wherefore should *he* rejoice at being made one among living creatures? Not, surely, that he should gorge himself with food, on purpose to cram this body which is about to perish. Assuredly man was not placed in this lower world that he should forget the end of his creation, and be unmindful of his nobler expectations. This is true Wisdom, that a man should consider the ends and purposes of all things; and I am convinced that many might have possessed this wisdom, had they not, by being puffed up with the pride of their poor attainments, vainly considered themselves as wise already.

*“ The end of creation is, that GOD may be glorified in his works by Man
“ alone.”*

Hence it becomes of the greatest importance that we should be acquainted with the works of Nature, than which no study can possibly be more noble, neither can any thing exist more interesting to the human mind; for, while many things remain concealed for future investigation, that which at present, by its grandure, occupies our attention is more to be esteemed for its intrinsic worth, than on account of any recompense, however large, which may accrue to us from the study. Though a very large and magnificent portion of the wonderful works of Nature is laid open to our views, a much greater still lies hid from our eyes; for God hath not permitted all things to be within the reach of human capacity. There are many things of which we have learned the existence; but of those which may exist without our knowledge we can have no conception. How many things are there of which we have acquired our first knowledge in this age, and even within a few years? and a still larger portion of science, of which we are now entirely ignorant, will belong to our successors. A vast field of inquiry is reserved for future ages, when even the remembrance of this passing generation shall be entirely obliterated; and the time will come when the industry and experience of those who are to follow us shall have made many discoveries which now lie concealed; for Nature does not communicate all her secrets at once. We vainly believe ourselves among the favoured number of the initiated, while we still remain only
in

in the porch of Nature's temple; for the holy mysteries are not indiscriminately revealed to all her votaries; they are concealed in the sacred recesses of the cell, or interior chamber, where truth lies veiled, and is only to be attained by patient perseverance. "If temperate youth, mindful of his Creator, would follow these researches, if these noble views were inculcated by the aged and listened to by the young in years, scarce even then should we reach the depth where truth lies buried, which we now, with careless study, search for on the surface *."—"It is certainly of great importance to penetrate into the hidden recesses of Nature, and, not remaining contented with outward appearances, to dive into the sacred mysteries of the divine operations †."

Influenced by these considerations, and eager to clear the way for discovering her secret operations, I have dared to enter the almost impenetrable forest of Nature, not dismayed by the thorny brakes with which it is environed: These I have carefully avoided, so far as was practicable or proper; though I have learned by experience, that no degree of circumspection can preserve even the greatest diligence from error and mistake. I have therefore submitted with patience to the scoffs of the ignorant and the malicious, who have either contemned the objects, or envied the success, of my laborious pursuits; despising those grinning apes and chattering baboons whom I have encountered in my journey, with persevering and laborious patience I have followed the road which fortune and the limits of my abilities have pointed out: And, though far from meeting with that success which the greatness of the subject deserves, and my attachment to the science of Nature has caused me eagerly to desire, I yet have reason, with the Psalmist, devoutly to exclaim,

O LORD!

How great are thy works!

A brutish man knoweth them not,

Neither doth the fool understand them.

LIST

* Preface to the Mus. Worm. p. 12.

† Seneca.

LIST OF THE SEVERAL EDITIONS OF THE SYSTEMA NATURÆ.

1. Leyden, 1735. Imperial folio, consisting of 12 pages; published under the inspection of J. F. Gronovius at my desire. This is only a view, or general outline, of the work; like a geographical map, which gives only a general idea of a country to be afterwards more particularly delineated in a topographical plan.

2. Stockholm, 1740. Octavo, 80 pages. Revised by myself, and with the addition of the nomenclature and characters of animals.

3. Hall, 1740. Oblong quarto, 70 pages. Published by J. J. Langen. The same as No. 1. with the addition of a German translation.

4. Paris, 1740. Octavo, 180 pages, and 1 plate. Published by B. Jussieu. The same as No. 2. with the addition of French names.

5. Hall, 1747. Octavo, 88 pages. Published by M. G. Agnethler. The same as No. 2. with the German names added.

6. Stockholm, 1748. Octavo, 232 pages, and 8 plates. Augmented by myself with the addition of the essential characters of vegetables, and the species of animals and minerals.

7. Leipzig, 1748. Octavo, 232 pages, and 8 plates. Published by the booksellers. The same as No. 6. with the addition of German names.

8. Stockholm, 1753. Octavo, 136 pages. The vegetables edited by J. J. Haartman; and the mineral kingdom, in octavo, by H. Moller.

9. Leyden, 1756. Octavo, 226 pages. Published by Gronovius. The same as No. 6. with some very small additions respecting birds and fishes.

10. Stockholm, 1758. Octavo. Published, with very large additions, by myself.

11. Leipzig, 1762. Octavo. A faulty pirated edition, with no improvements.

12. Stockholm *. In this edition, published by myself, are inserted,

All the species of animals which have come to my knowledge, with their differential characters, synonymous terms, places, and trivial names; the whole Method and Arrangement of the Animal Kingdom being improved in consequence of more extensive observation.

The class of Fishes is first arranged in a new method, taken from the rays of the fins.

The characters and differences of Plants are improved and amended.

The species of Minerals are augmented with additional observations and trivial names.

To the whole is prefixed new observations on the Kingdoms of Nature, with an introductory discourse concerning Nature †.

In

* There is no date given of this edition, which is styled his *ultima penultimaque editio*—T.

† In this list may be added, 13. Leipzig 1788. Published by Professor Gmelin, with very large improvements, derived from all the Zoological writers and travellers since 1706; from which edition this translation is taken, with several additions from sources that have not occurred to the learned Professor, which will be noticed in their proper places.—T.

In this undertaking I have been assisted by the following collections :

1. The Museum of King Adolphus Frederic : The first volume of a descriptive catalogue of which was published, in folio, at Stockholm, 1754 ; and a prospectus of the second volume, in octavo, at the same place in 1764. Both volumes are rich in exotic animals.
2. The Museum of Queen Louisa Ulrica : Published, in octavo, at Stockholm, 1764 ; very rich in shells and insects.
3. The Museum of Count Tessin ; Published, in folio, at Stockholm, 1753 ; rich in minerals and shells.
4. The Museum of C. de Geer ; rich in amphibious animals, insects, and other rare productions of nature.
5. The Museum of the Academy at Upsal ; stored with animals collected from every part of the world.
6. The Museum of the Academy of Sciences of Stockholm ; containing many fine natural productions.

For the advancement of this science, I have made journeys to examine the natural productions of the following countries :

Lapland, in 1732. Unpublished.

Dalekarlia, in 1784. Unpublished.

Oeland, in 1741. Published, in Swedish, at Stockholm in 1745, octavo.

Gothland, in 1741. Published along with the preceding.

Westgothland, in 1746. Published, in Swedish, at Stockholm in 1747, octavo.

Scania, in 1749. Published in Swedish, at Stockholm in 1751, octavo.

With the same views I published the *Fauna Suecica* at Stockholm in 1746, which was republished, with large additions, in 1761, both in octavo. And I have written on the same subjects in the *Amoenitates Academicæ*, six volumes octavo ; published at Stockholm in 1749—1763, the 7th vol. in 1769, and the 8th and 9th volumes, published under the inspection of Mr Schreber at Erlang, in 1785 *.

I have likewise employed the information received from the following scientific journeys, undertaken by my former pupils.

C. Ternstroem, into Asia in 1745 : He died at Pulocondore.

P. Kalm, through Pennsylvania and Canada, 1747.

His journey in N. America was published, in Swedish, at Stockholm, 1753—1760, in 3 vols. octavo.

L. Moutinus, into Lula Lapmark in 1749.

F. Hasselquist, through Egypt and Palestine in 1749.

His journey through Palestine was published, in Swedish, at Stockholm, in 1757, octavo.

O.

* This latter circumstance must necessarily be an addition to the Linnæan enumeration by Dr Gmelin.—T.

O. Torenus, to Malabar and Surat in 1750.

P. Ofsbeck, to China and Java in 1750.

His journey to the East Indies was published, in Swedish, at Stockholm, 1757, octavo.

P. Lœfvingius, to Spain and America in 1751.

His journey through Spain was published, in Swedish, at Stockholm in 1758, octavo.

P. J. Bergius, to the Isle of Gothland in 1752.

M. Kachler, into Italy and Apulia in 1752.

D. Solander, through Piten and Tornao Lapland in 1753.

D. Rolander, to Surinam and St Eustatius in 1755.

A. R. Martin, to Spitzbergen in 1758.

C. Alstroemer, through the south of Europe in 1760.

J. Falk, to Gothland in 1760.

The purpose of this work will be fully accomplished if it should hence forwards induce travellers, and curious inquirers, to examine carefully after known facts in natural history; to study such cabinets of natural history as are accessible; and to insert all new and not insignificant facts in the journals or transactions of their country: By these means the science of Nature will more readily be advanced, and vulgar errors be exposed; the generic and trivial names will be rendered more fixed; the foundations of economy, derived from this science, will be established; and the elements of a true Theology will be formed.

In the mean time, till these things can be perfected, by a more extensive and fuller knowledge of Nature, the following work is offered to the public.

Thou hast taught me, O GOD, from my youth up, and even until now I will tell of thy wondrous works.

UPSAL, 1766.

THE

T H E

E M P I R E O F N A T U R E.

A WAKENED, as if from a dream of ignorance, I have seen darkly, as he passed, the Eternal, Infinite, Omniscient, Almighty God, and am amazed! I have read of him in some traces of his wondrous works, the smallest of which, though comparatively insignificant, even to a degree of nothingness, evinces the most incomprehensible perfection of Power and Wisdom. I have observed that the animal world depends for existence on the vegetable kingdom, that the vegetables draw their sustenance from terrestrial matter, and that this last originates from the Earth. The world moves in an undisturbed orbit round the Sun, from which it is supplied with genial heat, the fountain of life: The Sun itself revolves round its axis, accompanied by the planets; and the whole systems on systems of the stars, in inconceivable vastness of number and dimensions, suspended on nothing, all move through free space, by the mediation of a force derived from “the great first Mover; the Being of Beings; the Cause of all Causes; the Preserver and Governor of the Universe; the Lord and Architect of this vast mundane system *.”—“Should we to this incomprehensible power give the name of *Fate*, we shall not err, for on this every thing that is depends: Shall we call it *Nature*, we are right, for from this every thing derives its being: If we say that it is *Providence*, we say truly, for by its guidance the Universe accomplishes all its operations †.”—“All is sense, all eye, all ear, all mind, all soul; every thing is in HIM, and HE in all things. Beyond this, even the conjectures of fancy are bewildered in their attempts to investigate ‡.”—“The Deity is equally eternal and beyond conception infinite, neither begotten nor created ||.”—“HE, without whom there is nothing, who hath begun and completed every thing that is, who both fills our eyes with wonder, and eludes our utmost observation, HE is only to be seen by
“humble

* Aristotle. † Seneca, Quæst. ii. 45. On this subject, however, we must be cautious not to assume the effect for the cause. ‡ Exodus, xx. 4. || Pliny's Nat. Hist. ii. 7.

“ humble contemplation of his perfections ; for His Glory shines in the splendour of
 “ holy and impenetrable retirement, to which only the soul hath access *.”

The UNIVERSE includes every thing that exists under God, and which can come under our observation by the agency of our senses. These are the stars, the elements, and the world, whirling round with never ceasing and unerring velocity. “ We perceive that the steady motions of these bodies must depend on the power of eternal laws, and that the order of their apparently wandering course cannot proceed at random ; neither have the other orbs been collected with such infinite contrivance that the vast mass of our world might remain immovable, on purpose only to view the heavens revolve around †.”

The stars are the most remote lucid bodies of the creation which revolve in a perpetual motion : They either shine by their own proper light, as the Sun, and the other more remote fixed stars ; or they are planets deriving light from other stars. Of these latter bodies, the primary planets, belonging to the Solar System, are Saturn, Jupiter, Mars, the Earth, Venus, and Mercury ‡. Some of these primary planets have secondaries, or satellites, which follow the motions of the primary round which they revolve ; as the Moon round the Earth, and several others of a similar kind. “ Neither can so vast a machine subsist without a preserver, nor can the regular course of the stars be produced by the impetus of a fortuitous cause ; for whatever is set in motion by the effect of chance will frequently have its progress disturbed, and must speedily be jumbled together §.”

The elements are the most simple natural substances ; of them the atmospheres of the planets are composed ; and by them, in all probability, the spaces between the stars are filled.

FIRE,	is	luminous,	resilient,	warm,	evolant,	vivifying.
AIR,		transparent,	elastic,	dry,	encircling,	generating.
WATER,		diaphanous,	fluid,	moist,	gliding,	conceiving.
EARTH,		opaque,	fixed,	cold,	quiescent,	barren.

“ Thus the whole order of this world is formed from confusion §.”

The

* Seneca, vii. 31.
 Herschel.—T.

† Ibid.
 § Seneca.

‡ To these add the *Georgium Sidus*, discovered by
 § Helmontius.



The Earth is a planetary sphere, which turns round its axis once every twenty-four hours, and which revolves in an yearly orbit round the Sun; it is surrounded by an elementary atmosphere, and covered by a stupendous crust of natural bodies, the mere surface of which forms the whole object of our science. This globe is terraqueous, or composed of land and water; its more depressed parts are overflowed with water, and gently pressed together by the sea; the more elevated parts are deserted by the water, and gradually enlarge into dry and habitable continents. This dry land is sprinkled by vapours, which, rising from the water, are gathered into clouds by the action of the air; by this means the highest Alpine mountains, covered with eternal snows, furnish rivulets which unite to form perpetually flowing rivers: These, pervading the thirsty earth, afford moisture to the productions of the ground, which serve as food for the living inhabitants: At the same time the motion of the winds excites a genial fire, which supplies vivifying heat to natural bodies. “The revolutions of the elements are alternate, and the changes among all things are reciprocal; so that whatever is lost by one is received by something else *.”

“Nature is the immutable law of God, by which alone every thing is, and acts, and is appointed to act †.” This artificer of all things, taught by its own laws, by none instructed, never acts by starts; it works silently, following what is most proper in all its operations; nothing is performed in vain, and nothing done superfluously; each object receives what is necessary to its well being, and all are uniformly provided, while Nature unremittingly pursues an undeviating tract. “All things assist Nature, that all her works may be perfectly accomplished ‡.”

Natural bodies consist of every thing that springs from the hand of the Creator, and which enters into the constitution of this world: These are divided into the three kingdoms of Nature, the boundaries of which meet together in the order of Zoophytes ||.

MINERALS, are concrete bodies, neither living, nor sentient.

VEGETABLES, are organized, living, and sentient bodies.

ANIMALS, are organized, living, and sentient bodies, possessing the power of spontaneous loco-motion.

* Seneca, iii. 10.
coral, coralines, &c.

† Helmontius.

‡ Seneca, iii. 29.

|| Or Stone-plants, such as

“ Nature does not confine her operations to one form, but delights in variety ; she
 “ renews one figure out of another, not contented with uniformity in procedure, and
 “ rejoices in undiminished power *.”

The earth, as has been already observed, is composed of the three kingdoms of Nature, which constitute what may be called her Empire ; these are,

THE MINERAL KINGDOM, which in rude masses occupies the interior parts ; being generated from salts, it is accidentally mixed together, and fashioned by chance in the ground.

THE VEGETABLE KINGDOM, clothes the surface of the earth with verdure, imbibes moisture through bibulous roots, breathes the air by its quivering leaves, celebrates nuptial festivities in a genial metamorphosis, and continues its various kinds by the dispersion of seeds within proper limits.

THE ANIMAL KINGDOM, adorns the external parts of the earth with sentient beings ; these have voluntary motion, they respire, produce eggs by means of generation, are impelled to action by the cravings of want, by the delights of love, and by sorrowful pain. They likewise restrain, within proper bounds, the numbers of animals and of vegetables by preying on both.

MAN, endowed with wisdom, was formed by his Creator the most perfect, last, and noblest of all his works on this earth ; clothed with wonderful marks of the Divine Majesty, he judges, according to the limits of his senses and capacity, of the amazing contrivance evident in creation ; he admires its astonishing beauties and consummate perfections, and, from these, is led humbly to adore the glorious author of all. Carrying his views through the multiplied generations which have passed away, he ascends to the knowledge of the Creator ; and, looking forward to the constant preservation of all things, he discovers the never failing watchfulness of Nature over all her works. On one hand, the Divine power is seen to enoble the earth by the production of vegetables, and to give honour to the vegetable kingdom in its usefulness to animals ; on the other hand, man evidently reflects back the radiant beams of reason towards the glorious and majestic fountain of all perfect wisdom. “ Thus the whole world is full
 “ of the divine glory, while in man all his works praise God †.” Man, formed by the quickening hand of God out of the sluggish ground, contemplates the majesty of
 his

* Seneca, vii. 27.

† Psalms.

his Author through the ends of creation ; he is appointed a fit inhabitant of the earth, that he may shew forth the praises of the most high. “ This contemplation of Nature “ may be justly considered as a celestial pleasure escaped from the porch of the ban- queting house of heaven ; and the mind which partakes of it, though encumbered “ with the darkness of human nature, enjoys a part of the celestial light, and spends “ this life below as if in a terrestrial paradise *.”—“ Neither can true piety, nor the “ full measure of gratitude which is due to God, be perfectly comprehended without “ a knowledge of Nature : Man was made for the contemplation and admiration of “ his God ; and to this noble object the best and readiest course lies through the study “ of natural knowledge †.”

Wisdom, an emanation of the Divine Spirit, is man’s highest perfection ; by it he forms proper conclusions concerning such things as present themselves to his senses, which can only take cognisance of such natural objects as are immediately around, and within reach of their spheres of action. Hence the first step towards the attainment of wisdom is to know natural bodies, and to distinguish them from each other : This distinctive knowledge requires that just ideas be formed of each particular body, and of all the marks imprinted on them by Nature, whereby they may each be discriminated from every other body ; and, that this knowledge may be communicable, distinct proper names must be affixed to each individual object ; for, unless the name of any object is known, it becomes impossible to apply such knowledge as may be already discovered on the subject to its proper object. These are the elements and alphabet of the Science of Nature, which cannot possibly be studied to advantage by any one who is ignorant of this necessary preliminary knowledge. “ When the proper genus of “ any object is unknown, even the most accurate and elaborate description cannot “ convey any certain knowledge of what is meant, but must for the most part remain “ vague and uncertain ‡.”

Methodical

* A. Holm.

† Cicero.—After the death of Marcus Aurelius, the soldiers elected several Emperors who hardly knew how to write their names ; these illiterate princes, considering learned men as lazy and useless drones, left learning entirely to the cloisters. The Monks at first held the study of Nature in contempt ; they next aspersed it as unattainable ; and, lastly, they persecuted its followers as forcerers : From this time natural knowledge, and the revealed will of God, came to be considered as contradictory to each other ; and, from the influence of this error, many bigots, even to this day, still persist in sanctified ignorance. *Subm, Act. Nidrof.* 1763.

‡ Caesalpinus.

Methodical arrangement, which is the soul of science, indicates every natural body at first sight, so that it may be known by its own name; and this name points out whatever the industry of the age has discovered concerning the body to which it belongs: Thus, amidst the greatest apparent confusion of things, the order of Nature is seen to retain the highest degree of exactness. This systematic arrangement is most conveniently divided into branches, subordinate to each other, which have received various appellations; thus,

Class,	Order,	Genus,	Species,	Variety.
Highest genus,	Intermediate genus,	Proximate genus,	Species,	Individual.
Province,	District,	Parish,	Ward,	Hamlet.
Legion,	Batalion,	Company,	Mess,	Soldier.

“ For, unless natural bodies be reduced under regular order, and distributed as in
 “ the divisions of a well regulated camp, every thing that is known concerning them
 “ must remain in confusion and uncertainty *.”

The names and characters employed in system must apply accurately to the order of arrangement, and are therefore to be divided, as above, into Classes, Orders, Genera, Species, and Varieties. The differential characters, which distinguish these divisions and subdivisions from each other must likewise occupy a principal part in systematic arrangement; for it is indispensibly necessary to the knowledge of any individual, that its name may be readily known and discovered from among the rest; “ for if the
 “ names of things be confused, the whole science must fall into inextricable perplexi-
 “ ty †.” Hence one great employment of man, at the beginning of the world, must have been to examine created objects, and to impose on all the species names according to their kinds.

The science of Nature is founded on an exact knowledge of the nomenclature of natural bodies, and of their systematic arrangement; this, like the clew of Ariadne, enables a philosopher to travel alone, and in safety, through the devious meanderings of Nature's labyrinth. In this methodical arrangement, the Classes and Orders are the creatures of human invention, while the division of these into Genera and Species is the work of Nature. All true knowledge refers finally to the species of things, while, at the same time, what regards the generic divisions is substantial in its nature.

One

* Cæfalpinus.

† Ibid.

One order of things originates from the Creator, while the other is the work of man, and is the subject of our present labour. God, beginning from the most simple terrestrial elements, advances through Minerals, Vegetables, and Animals, and finishes with Man. Man, on the contrary, reversing this order, begins from himself, and proceeds downwards to the materials of the earth. The framer of a systematic arrangement begins his study by the investigation of particulars, from which he ascends to more universal propositions; while the teacher of this method, taking a contrary course, first explains the general propositions, and then gradually descends to particulars. Springs unite together into rivulets, and these conjoin to form rivers; through these the skillful navigator ascends so far as his art allows, but is never able to reach the original fountains. A distinct knowledge of things being given us, we must endeavour to penetrate farther into their particular properties, and to investigate, as far as we are able, their phenomena, their mysterious operations, their natures, their virtues, and their uses. In the science of Natural History, through its several departments of the three kingdoms of Nature, lies the only sure foundation of Regimen, Medicine, and Economy, both that which regards the arts of life, and that which is followed in the operations of Nature. "Happy are those who cultivate this science, if they know and employ justly the blessings which they enjoy!"

All created things are proofs of the Divine power and wisdom, and fertile sources of human happiness; in their proper use the goodness of God is manifested to man; from their beauty and fitness the wisdom of the Creator shines forth; and, from the admirable economy which appears in their preservation, their just proportions to each other, and in the means employed for their perpetual renovation, the power of the Divine Majesty is most clearly shewn: Therefore the discovery of these things has in all ages been highly esteemed and earnestly prosecuted by the wise and truly learned; while this study hath only been despised by the ignorant and the foolish.

I will declare thy wondrous works, O Lord! and all the generations of the earth shall speak of the might of thy terrible acts.

THE

THE ANIMAL KINGDOM.

ANIMALS possess sensation through the powers of a living organization, which is animated by the action of a medullary substance; they perceive by the energy of nerves, and move themselves from place to place by the exertions of their will. The life of their animated, and perpetually moving, hydraulic machines, is sustained by an electrico-etherial lambent flame, which originates in the brain; and in it is the residence of the will, the incomprehensible cause of voluntary motion.

Nature, munificent in the multiplication of her works almost to prodigality, has ordained that animal life should originate in minuteness beyond conception; it is generated in a fluid, and begins to exist in the liquid matter of an egg; for, as has long ago been observed by Aristotle, “every living thing arises from an egg.” The egg within its coats, which often contain the white or glutinous matter, is always composed of a yolk; floating on the upper surface of this is inserted the pulsatory speck, or *punctum saliens*; this enlarges, by a species of vegetation, into an embryo, which, like a plant by its stem, is attached by the umbilical chord, and rooted in the placenta of the yolk.

The prolific mother, before conception, produces a living medullary abridgement of a new animal, perfectly resembling her own kind, similar to the *plume* in vegetable seeds, which has been called the *carina* of Malpighius. This, through the male influence, analogous to the action of the *farina foecundans*, or *pollen* of plants, assumes to itself a heart, which ramifies through the whole of its minute body; for it is observed that the pulsatory speck, or *punctum saliens*, of the hatching egg, first presents to view a beating heart, and a brain, with its *medulla oblongata*. This little heart, which stops when cold, is excited to action by the influence of genial heat; and into this the gradual expansion of the air bubble presses the nourishing liquors, through proper vascular canals prepared for their conveyance. The first rudiment, therefore, of life in living animals is only a medullary ramification continued from the first creation of each species; hence the egg may be considered as a living medullary bud, existing from the
very

very origin of the mother, though it does not assume its own proper existence till it be furnished, by impregnation, with the paternal heart. From this it follows, that equivocal generation is an impossible absurdity.

The hydraulic animal machine resembles that of vegetables, but is exclusively conjoined with a vast number of faculties which are lodged in, or are dependent on the structure of, the brain. The soft internal medullary *pith* stretches out from the brain, as from a bulbous root, into a simple *stem*, which is infinitely subdivided in its course, and sends out nervous filaments, similar to itself, for the supply of every part of the body. The hardened inward *woody* matter, which, covering the former, arises from the skull as from a root, elongates into the vertebral *stem*, is articulated by moveable joints, and branched with opposite *boughs*; to these are attached the fibrous, fleshy, and contractile muscles, analogous to *leaves*, spreading in determinate order, and having their extremities fixed to the nearest joints. The external *cortical* substance is rooted internally in the lacteals, meets together in the heart, as a *bulb*, and spreads out in a double and similar vascular *stem*, which branches similarly into infinitely ramified double *twigs*; from the extreme bifurcation of these arise the genital parts of fructification.

The interior faculties of the animal machine are, 1st, The animal, electric, motive faculty, or artisan of its divine life; this, acting secretly within the organized bulbous brain, wills and thinks, and, spreading its influence through the electrical threads of the nerves, rules and governs the whole machine. 2d, The vital pneumatic faculty, which, residing in the lungs, absorbs the vital principle from the air for supporting animal heat, and for preserving the living principle. 3d, The natural hydraulic faculty, which resides in the vascular system, and originates from the perpetually moving heart; this alternately receives the fluids from, and propels them to, every part of the machine, adding or taking them away according to necessity, and perpetually guarding against deficiency or redundancy. 4th, The digestive faculty, which, residing in the alimentary canal, prepares proper juices for being taken up by the lacteal vessels, which carry them into the system, for the nourishment and support of the whole. 5th, The genial spermatic faculty, which is placed at the extremity of the trunk containing the animal and natural faculties; this conjoins the influence of the nervous and vascular organs, and gives origin to a distinct animalcular machine, in every respect similar to the parent stock.

The instruments of the senses are physical organs, placed at the extremities of nerves derived immediately from the brain: Through the influence of these the animal, by a

Divine contrivance, is enabled to perceive external objects.—The **EYE** is a camera obscura, which paints external objects in their just forms, proportions, and colours.—The **EAR** is a drum, composed of a tight membrane stretched over the cochlea, which gives perception of sound, in consequence of tremulous motions excited by the air.—The **NOSE** is a broad, convoluted, humid membrane, which arrests the volatile effluvia which float in the air.—The **TONGUE**, beset with little spongy papillae, attracts such substances as are applied to it in a state of solution.—The sense of **TOUCH** resides in soft papillae, which are spread every where over the skin; and which readily assume the figure of such bodies as come into contact with them.

Most animals enjoy the use of these senses, though all are not possessed of every one of them: They might have employed additional species of perception, if it had pleased the Creator to endow them with a greater number of sensitive organs; as the magnet perceives the presence of iron, and as amber indicates the existence of electrical phenomena: Antennae are only given to insects, and the uses of these organs are as much unknown to us as those of the Ears must necessarily be to that tribe of animals. The Eye acts by the agency of light; the Ear through the influence of air; the sense of Touch is produced by the contact of solid bodies; the Nose examines volatile substances by means of its nerves; and, lastly, the Tongue, by its fibrils, attracts soluble things, that we may be enabled to judge if they are agreeable, permitted, and fit for use; or whether they be disagreeable, forbidden, and noxious; and reflection induces us to choose such as are grateful to our senses, rejecting those which are disagreeable.

JOY,	is childish,	sanguineous,	red,	oily,
	spongy,	warm,	freely pulsing,	breathing easily,
	laughing,	transpiring,	alert,	<i>Life.</i>
FEAR,	youthful,	phlegmatic,	pale,	watery,
	lax,	chilling,	weakly pulsing,	breathing short,
	suffocating,	purging,	trembling,	<i>Disease.</i>
ANGER,	manly,	choleric,	yellow,	spiritous,
	firm,	hot,	strongly pulsing,	asthmatic,
	snorting,	urining,	agitating,	<i>Medicine.</i>
GRIEF,	aged,	melancholic,	atrabilious,	acid,
	rigid,	cold,	slowly pulsing,	breathing difficultly,
	sighing,	costive,	quiescent,	<i>Death.</i>

Thus,

Thus, Joy fills itself with the good things of this life; Fear escapes from danger by flight; Anger defends itself by resistance; and Grief mourns for the losses and miseries which are incident to this mortal state.

The policy of Nature is equally manifested in all its kingdoms: For, as nations are not created for the sake of their rulers, but as governors are appointed to watch over the interests of the governed, so herbivorous animals are created for subjecting vegetables under proper restriction, and carnivorous for preventing the exuberance of those animals that live on vegetables; and of these last the greater keep the lesser within proper bounds. Man, in his character of an animal, is intended for preserving order over all, but chiefly on his own account; excited by a savage instinct, he exercises tyrannic rule, that just proportions may be perpetually preserved among the members of the natural commonwealth. "Many individuals, in their turn, among the citizens of this great republic, vainly conspire against the majesty of rational Man, their appointed chief magistrate, whose great employment is to acknowledge the high Authority of the whole *." As water collects from multitudes of small springs, through enlarging rivulets, streams, and rivers, to flow into the immense ocean, so the commonwealth of Nature, beginning from the vastly numerous plebeian rank of animals, ascends, through less numerous patricians, and by a scanty nobility, to Man, the emperor and ruler of the whole; while even the smallest animals, which, by their infinite number, possess vast power and energy, contribute to the welfare of the larger; and the less active give place to such as are more excellent: Thus Nature is never greater than when it seems composed infinitely of little things. The agents of this natural police, each appropriated to its proper department, are equally numerous with the species of animals; all being prompted to the proper discharge of their duty, because their own preservation depends on that being accurately fulfilled, that nothing may be neglected, and nothing done in vain. And, lest any one should encroach on the province of another, and thereby deprive his neighbour of the reward appointed to his actions, the *Law of Poison* is established, under the pain of capital punishment, and recorded even in the animal senses, chiefly those of taste and smell, lest transgressors, by pleading ignorance, should escape.

The principal occupations of the inhabitants of Nature are:—To multiply their species, that every thing may remain in just quantity and proportion:—To preserve equilibrium among the species of animals and vegetables, that a just proportion may for ever be continued; this end is accomplished in various ways; 1st, by annually cutting

* Amoen. Acad. vi. 17.

down the vegetable crop, that the yearly growth may be renewed ; 2d, by restraining the numbers of such as become erroneous, lest any of the proper species be expelled ; 3d, by destroying languid, dead, nasty, defiled, stagnant, acid, and putrid matters, that the elegance of Nature may be preserved :—Lastly, To defend themselves from extinction, lest the execution of Nature's laws should be neglected.

The economy of Nature is employed in the Generation, Preservation, and Destruction, of things ; and all Nature conspires together that the works of the Creator may continue unimpaired. Animals are generated in the genial influence of warm blood, having need of the care of others for their education ; and, as the Creator, who could not be rewarded, took care of the first race of individuals, this trust passes, in the descending line, to their offspring, who do not repay the labours of their parents. Preservation is to be accomplished by the provision of daily food, which, being widely scattered, is therefore to be sought after with diligence ; thus, want scatters those over the face of the earth whom love gathers together. The destruction of one individual is necessary for repairing the wants of another ; life must be sustained by constant and laborious search after the carcases of objects fit for food, and these do not abundantly occur : Thus, a continual devastation of all things is produced ; the more alert escape the danger by their bravery, by defences, and by various contrivances ; while the more languid sink under the perpetual warfare ; the most active hasten on in their course, that Nature may perpetually rejoice in the constant renovation of all her works.

The incentives of Nature, which are implanted in all her works, that they may readily perform their duty, are—*Love*, which kindly convokes the sexes, and excites to the multiplication of their kinds ;—*Craving Hunger* again disperses them, that they may labour for their preservation ; and—*Horrible Pain* stirs them up to destroy, and causes them to avoid destruction. In all, the wisdom of *God* is made manifest.

The

The natural Division of Animals into Classes, may be formed from a knowledge of the Internal Structure :

- | | | | |
|----|---|---|--|
| 1. | { A heart with two auricles
and two ventricles ;
Warm and red blood : | { Viviparous.
Oviparous. | Cl. 1. <i>Mammalia</i> .
Cl. 2. <i>Birds</i> . |
| 2. | { A heart with one auricle
and one ventricle ;
Cold red blood * : | { Voluntary lungs.
External gills. | Cl. 3. <i>Amphibia</i> .
Cl. 4. <i>Fishes</i> . |
| 3. | { A heart with one auricle
and one ventricle ;
Cold colourless sanies : | { Having antennae.
Having tentacula. | Cl. 5. <i>Insects</i> .
Cl. 6. <i>Worms</i> . |

CHARACTERS

* Haller, *Element. Physiol.* i. 305. 307. informs us, that in all the cold blooded animals which he had dissected, he uniformly found the heart to have but one auricle and one ventricle ; it is therefore surprising that Hasselquist, *Itin. Palest.* 293, should ascribe two of each to the crocodile, more especially as Borichius, *Herm. Sap. Egypt.* 276, had before declared its heart to have only one of each.—LIN.

C H A R A C T E R S

O F T H E

CLASSES OF THE ANIMAL KINGDOM.

I. MAMMALIA.

The heart has two auricles and two ventricles ; the blood is warm and red.

The lungs respire regularly alternate.

The jaws are horizontally incumbent on each other, and covered with lips ; within which the teeth are, for the most part, included.

They procreate by an intrant penis ; are viviparous and lactiferous.

Their organs of sense are, the tongue, nostrils, eyes, ears, and the cutaneous papillae.

They are covered with hair ; which is thin on the animals of the warmer regions, and very scanty on aquatic animals.

Their motive organs are four legs and feet ; except those which are entirely confined to the water, whose hind legs are wanting. Most have tails.

II. BIRDS.

The heart has two auricles and two ventricles ; the blood is warm and red.

The lungs respire regularly alternate.

The jaws are horizontally incumbent, naked, stretched out, and without teeth.

The penis is subintrant ; they have no scrotum ; and are oviparous, the eggs being covered with a calcareous shell.

Their organs of sense are, the tongue, nostrils, eyes, and ears, without external auricles.

They are covered with incumbent, imbricated feathers, lapping over each other like slates on a roof.

Their extremities are, two legs and feet, two wings, and a heart-shaped rump.

III. AMPHIBIA.

The heart has one auricle and one ventricle ; their blood is cold and red.

The lungs respire according to the will of the animal.

The jaws are horizontally incumbent on each other.

The penis, in many species, is double ; the eggs of most are membranous.

Their organs of sense are, the tongue, nostrils, eyes, and ears.

They are covered with a naked skin.

Their motive organs are various in different animals, and wanting in some.

IV. FISHES.

The heart has one auricle and one ventricle ; the blood is cold and red.

They have compressed external gills instead of lungs.

The jaws are horizontally incumbent on each other.

The penis is wanting in most. The eggs have no white.

Their organs of sense are, the tongue, nostrils, eyes, and ears.

They are covered with imbricated scales.

Their motive organs are fins fitted for swimming.

V. INSECTS.

The heart has one auricle and one ventricle, propelling, cold, colourless, fanies.

They breathe by pores on the sides of their bodies.

Their jaws open laterally.

They copulate by means of an intrant penis.

Their organs of sense are, the tongue, eyes, antennae on the head, which is destitute of brain, and neither ears nor nostrils.

They are covered by a boney coat of mail.

Their motive organs are legs in all, and wings in a great many.

VI. WORMS.

The heart, for the most part, has one ventricle without any auricle, and propels a cold colourless fanies.

Their breathing pores are obscure and uncertain.

Their copulation and penis are various ; some are hermaphrodites, having both male and female parts in one individual.

Their organs of sense are tentacula in all, and eyes in most ; the brain, ears, and nostrils, are wanting.

They are covered with calcareous shells, or have no covering except spines.

They have neither feet nor fins.

Thus:

Thus Nature, in her Menagerie, preserves Animals in six different forms :

MAMMALIA,	covered with hair,	walk on the earth,	speaking.
BIRDS,	covered with feathers,	fly in the air,	singing.
AMPHIBIA,	covered with skin,	creep in warm places,	hissing.
FISHES,	covered with scales,	swim in the water,	smacking.
INSECTS,	covered with armour,	skip on dry ground,	buzzing.
WORMS,	without skin,	crawl in moist places,	silent.

CLASS

THE
ANIMAL KINGDOM.

C L A S S. I.
M A M M A L I A,

O R
ANIMALS WHICH GIVE SUCK TO THEIR YOUNG.

SYSTEMATIC CATALOGUE

OF THE

MAMMALIA*.

I. PRIMATES.

MAN.

i

HOMO.

Sapient Man.

Wild Men.

Americans.

Europeans.

Asiatics.

Africans.

Monsters.

Dwarfish.

Gigantic.

Mutilated.

Beardless.

Sharp-headed.

Flat-headed.

1. *Homo Sapiens.*

α. *H. Feri.*

β. *H. Americani.*

γ. *H. Europaei.*

δ. *H. Asiatici.*

ε. *H. Afri.*

ζ. *H. Monstrosi.*

1. *Alpini.*

2. *Patagonici.*

3. *Monorchides.*

4. *Imberbes.*

5. *Macrocephali.*

6. *Plagiocephali.*

APE.

ii

SIMIA.

Divided into

* APES.

SIMIÆ.

1. Chimpanzee.

2. Ourang-Outang.

3. Pongo.

4. Jocko.

5. Great Gibbon.

6. Lesser Gibbon.

1. *Simia troglodytes.*

2. *Simia Satyrus.*

β. *S. Satyrus Pongo.*

γ. *S. Satyrus Jocko.*

3. *Simia Lar.*

β. *S. Lar minor.*

c

7

* The figures before the English names express the running number in the class, those preceding the Latin names denote the species in each genus, and the Greek letters denote the varieties in each species.

C A T A L O G U E

7. Silvery Gibbon.
8. Pigmy.
9. Magot.
10. Hog-faced Ape.

7. *S. Lar argentea*.
4. *Simia Sylvanus*.
5. *Simia inuus*.
6. *Simia Suilla*.

** BABOONS.

11. Maimon.
12. Little Baboon.
13. Great Baboon.
14. Mantegar.
15. Mandril.
16. Hoggish Baboon.
17. Wood Baboon.
18. Yellow Baboon.
19. Cinereous Baboon.
20. Blue-faced Baboon.
21. Brown Baboon.
22. Crested Baboon.

P A P I O N E S.

1. *Papio nemestrina*.
2. *Papio apedia*.
3. *Papio Sphinx*.
4. *Papio Mormon*.
5. *Papio Maimon*.
6. *Papio porcaria*.
7. *Papio sylvicola*.
8. *Papio variegata*.
9. *Papio cinerea*.
10. *Papio livea*.
11. *Papio platypygos*.
12. *Papio cristata*.

*** MONKEYS.

23. Dog-tailed Monkey.
24. Tartarin.
25. Urfine Tartarin.
26. Lowando.
27. White-bearded Lowando.
28. Wanderu.
29. White-bearded black Wanderu.
30. Tie-tie Wanderu.
31. Purple-faced Wanderu.
32. Malbrouck.
33. Macaque.
34. Dog-headed Monkey.
35. Spotted Monkey.
36. Green Monkey.
37. Moustache.
38. Mangabey.

C E R C O P I T H E C I.

1. *Cercopithecus cynoifurus*.
2. *Cercopithecus Hamadryas*.
 β . *C. Hamadryas urfinus*.
3. *Cercopithecus veter*.
 β . *C. veter albibarbatus*.
4. *Cercopithecus Silenus*.
 β . *C. Silenus albibarbatus*.
 γ . *C. Silenus Tie-tie*.
 δ . *C. Silenus purpuratus*.
5. *Cercopithecus Faunus*.
6. *Cercopithecus cynomolgus*.
7. *Cercopithecus cynocephalus*.
8. *Cercopithecus Diana*.
9. *Cercopithecus fabaeus*.
10. *Cercopithecus cephus*.
11. *Cercopithecus aethiops*.

OF THE M A M M A L I A.

- | | |
|-----------------------------|---|
| 39. Collared Mangabey. | β . <i>C. aethiops torquatus</i> . |
| 40. Egret. | 12. <i>Cercopithecus aygula</i> . |
| 41. Monea. | β . <i>C. aygula Monea</i> . |
| 42. Nodding Monkey. | 13. <i>Cercopithecus nictitans</i> . |
| 43. Bearded Nodding Monkey. | β . <i>C. nictitans barbatus</i> . |
| 44. Rillow. | 14. <i>Cercopithecus finicus</i> . |
| 45. Bonneted Rillow. | β . <i>C. finicus pileatus</i> . |
| 46. Douc. | 15. <i>Cercopithecus nemaus</i> . |
| 47. Monina. | 16. <i>Cercopithecus Mona</i> . |
| Patas. | 17. <i>Cercopithecus ruber</i> . |
| 48. Black-banded Patas. | α . <i>C. ruber nigrofasciatus</i> . |
| 49. White-banded Patas. | β . <i>C. ruber albofasciatus</i> . |
| 50. Talapoin. | 18. <i>Cercopithecus Talapoin</i> . |
| 51. Black Talapoin. | β . <i>C. Talapoin niger</i> . |
| 52. Agile Monkey. | 19. <i>Cercopithecus petauristus</i> . |
| 53. Negro Monkey. | 20. <i>Cercopithecus maurus</i> . |
| 54. Roloway. | 21. <i>Cercopithecus Roloway</i> . |
| 55. Long-nosed Monkey. | 22. <i>Cercopithecus nasuus</i> . |
| 56. Prude. | 23. <i>Cercopithecus capistratus</i> . |
| 57. Yellowish Monkey. | 24. <i>Cercopithecus luteolus</i> . |
| 58. Tawny Monkey. | 25. <i>Cercopithecus fulvus</i> . |
| 59. Greenish Monkey. | 26. <i>Cercopithecus viridens</i> . |
| 60. Hircine Monkey. | 27. <i>Cercopithecus hircinus</i> . |
| 61. King Monkey. | 28. <i>Cercopithecus regalis</i> . |
| 62. Bay Monkey. | 29. <i>Cercopithecus badius</i> . |
| 63. Annulated Monkey. | 30. <i>Cercopithecus fuscus</i> . |

**** SAPAJOUS.

SAPAJI.

- | | |
|---------------------|---------------------------------------|
| 64. Guariba. | 1. <i>Sapajus Beelzebub</i> . |
| 65. Arabata. | 2. <i>Sapajus feniculus</i> . |
| 66. Quato. | 3. <i>Sapajus paniscus</i> . |
| 67. Exquima. | 4. <i>Sapajus Exquima</i> . |
| 68. Sajou. | 5. <i>Sapajus trepidus</i> . |
| 69. Grey Sajou. | β . <i>S. trepidus fulvus</i> . |
| 70. Horned Sapajou. | 6. <i>Sapajus fatuellus</i> . |
| 71. Brown Sapajou. | 7. <i>Sapajus apella</i> . |

C A T A L O G U E

- 72. Sai.
- 73. White-throated Sai.
- 74. Saimiri.
- 75. Chestnut Saimiri.
- 76. Magu.
- 77. Variegated Sapajou.

- 8. Sapajus Capucinus.
 - β. S. Capucinus albulus.
- 9. Sapajus sciureus.
 - β. S. sciureus mortus.
- 10. Sapajus fyrichtus.
- 11. Sapajus variegatus.

***** S A G O I N S.

S A G O I N I.

- 78. Saki.
- 79. Sanglin.
- 80. Yellowish Sanglin.
- 81. Pinche.
- 82. Marikina.
- 83. Mico.
- 84. Tamarin.

- 1. Sagoinus pithecia.
- 2. Sagoinus Jacchus.
 - β. S. Jacchus moschatus.
- 3. Sagoinus Oedipus.
- 4. Sagoinus rosalius.
- 5. Sagoinus argenteus.
- 6. Sagoinus Midas.

M A U C A U C O.

iii

L E M U R.

- 85. Loris.
- 86. Taillefs Maucauco.
- 87. Indri.
- 88. Potto.
- 89. Mongous.
- 90. Black-faced Mongous.
- 91. Black Mongous.
- 92. White-handed Mongous.
- 93. Brown Mongous.
- 94. Grey Mongous.
 - Vari.
- 95. Black Vari.
- 96. Brown Vari.
- 97. White Vari.
- 98. Pied Vari.
- 99. Ring-tailed Maucauco.
- 100. Murine Maucauco.
- 101. American Maucauco.
- 102. Curley Maucauco.

- 1. Lemur tardigradus.
- 2. Lemur ecaudatus.
- 3. Lemur Indri.
- 4. Lemur Potto.
- 5. Lemur Mongoz.
 - β. L. Mongoz maurus.
 - γ. L. Mongoz negro.
 - δ. L. Mongoz albipes.
 - ε. L. Mongoz fuscus.
 - ζ. L. Mongoz cinereus.
- 6. Lemur Macoco.
 - α. L. Macoco niger.
 - β. L. Macoco fuscus.
 - γ. L. Macoco albus.
 - δ. L. Macoco variegatus.
- 7. Lemur Catta.
- 8. Lemur murinus.
- 9. Lemur bicolor.
- 10. Lemur laniger.

OF THE M A M M A L I A

- | | |
|---------------------------|------------------------|
| 103. Podje. | 11. Lemur Podje. |
| 104. Prehenfile Maucauco. | 12. Lemur prehenfilis. |
| 105. Coluga. | 13. Lemur volans. |

B A T. iv *VESPERTILIO.*

A. " With four foreteeth in each jaw.

- | | |
|-----------------------|--------------------------------|
| Vampire. | 1. Vespertilio Vampyrus. |
| 106. Rouffet. | α. V. Vampyrus niger. |
| 107. Rouget. | β. V. Vampyrus subniger. |
| 108. Lesser Vampire. | γ. V. Vampyrus helvus. |
| 109. Spectre. | 2. Vespertilio Spectrum. |
| 110. Spear-nosed Bat. | 3. Vespertilio perspicillatus. |
| 111. Heart-nosed Bat. | 4. Vespertilio Spafma. |
| 112. Javelin Bat. | 5. Vespertilio hastatus. |
| 113. Leaf-nosed Bat. | 6. Vespertilio foricinus. |
| 114. Hare-lip Bat. | 7. Vespertilio leporinus. |
| 115. Chop-fallen Bat. | 8. Vespertilio labialis. |

B. With four foreteeth above, and six below.

- | | |
|----------------------|-------------------------------|
| 116. Long-eared Bat. | 9. Vespertilio auritus. |
| 117. Common Bat. | 10. Vespertilio murinus. |
| 118. Noctule. | 11. Vespertilio Noctula. |
| 119. Serotine. | 12. Vespertilio Serotinus. |
| 120. Pipistrelle. | 13. Vespertilio Pipistrellus. |
| 121. Barbastelle. | 14. Vespertilio Barbastellus. |
| 122. Bearded Bat. | 15. Vespertilio hispidus. |

C. With four foreteeth above, and eight below.

- | | |
|---------------------------|-------------------------|
| 123. Striped Bat. | 16. Vespertilio pictus. |
| 124. Reddish Striped Bat. | β. V. pictus rubellus. |

D. With two foreteeth above, and six below.

- | | |
|-------------------|---------------------------|
| 125. Senegal Bat. | 17. Vespertilio nigritia. |
|-------------------|---------------------------|

E. With two foreteeth above, and four below.

- | | |
|----------------------------|---------------------------|
| Bull-dog Bat. | 18. Vespertilio Moloffus. |
| 126. Greater Bull-dog Bat. | α. V. Moloffus major. |

C A T A L O G U E

127. Lesser Bull-dog Bat. β. *V. Moloffus minor*.

F. With two foreteeth above, and none below.

128. Cephalote. 19. *Vespertilio Cephalotes*.
 129. Straw-coloured Cephalote. β. *V. Cephalotes melinus*.

G. With no foreteeth above, and four below.

130. Purse-winged Bat. 20. *Vespertilio lepturus*.
 Horse-shoe Bat. 21. *Vespertilio ferrum-equinum*.
 131. Larger Horse-shoe Bat. α. *V. ferrum-equinum major*.
 132. Lesser Horse-shoe Bat. β. *V. ferrum-equinum minor*.

H. With no foreteeth in either jaw.

133. New-York Bat. 22. *Vespertilio noveboracensis*.

I. The teeth uncertain.

134. Broad-winged Bat. 23. *Vespertilio lascopterus*.
 135. Broad-tailed Bat. 24. *Vespertilio lasiurus*.
 136. Claytons Bat. 25. *Vespertilio Americanus*.

II. B R U T A.

S L O T H.

v

BRADYPUS.

137. Ai. 1. *Bradypus tridactylus*.
 138. Unau. 2. *Bradypus didactylus*.
 139. Five-toed Sloth. 3. *Bradypus pentadactylus*.

A N T - E A T E R.

vi

MYRMECOPHAGA.

140. Two-toed Ant-eater. 1. *Myrmecophaga didactyla*.
 141. Three-toed Ant-eater. 2. *Myrmecophaga tridactyla*.
 142. Great Ant-eater. 3. *Myrmecophaga jubata*.
 143. Short-nosed Great Ant-eater. β. *M. jubata fima*.
 144. Tamandua. 4. *Myrmecophaga tetradactyla*.
 145. Five-toed Ant eater. 5. *Myrmecophaga pentadactyla*.
 146. Little Tamanoir. β. *M. pentadactyla minor*.
 147. Cape Ant-eater. 6. *Myrmecophaga capensis*.

M A N I S.

vii

MANIS.

148. Pangolin. 1. *Manis pentadactyla*.

OF THE MAMMALIA.

149. Phatagin.

2. *Manis tetradactyla*.

ARMADILLO.

viii *DASYPUS.*

- 150. *Apará*.
- 151. Four-banded Armadillo.
- 152. *Encouberto*.
- 153. Seven-banded Armadillo.
- 154. Eight-banded Armadillo.
- 155. Nine-banded Armadillo.
- 156. *Leverian* Armadillo.
- 157. *Kabassou*.
- 158. Largest Armadillo.
- 159. *Cirquinçon*.
- 160. Long-tailed Armadillo.

- 1. *Dasypus tricinctus*.
- 2. *Dasypus quadricinctus*.
- 3. *Dasypus sexcinctus*.
- 4. *Dasypus septemcinctus*.
- 5. *Dasypus octocinctus*.
- 6. *Dasypus novemcinctus*.
- β. *D. novemcinctus leverianus*.
- 7. *Dasypus duodecemcinctus*.
- 8. *Dasypus maximus*.
- 9. *Dasypus novemdecemcinctus*.
- 10. *Dasypus longicaudatus*.

RHINOCEROS.

ix *RHINOCEROS.*

- 161. One-horned Rhinoceros.
- 162. Two-horned Rhinoceros.

- 1. *Rhinoceros unicornis*.
- 2. *Rhinoceros bicornis*.

SUKOTYRO.

x *SUKOTYRO.*

- 163. *Javan Sukotyro*.

- 1. *Sukotyro indicus*.

ELEPHANT.

xi *ELEPHAS.*

- 164. Great Elephant.
- 165. American Elephant.

- 1. *Elephas maximus*.
- 2. *Elephas americanus*.

WALRUS.

xii *TRICHECHUS.*

- 166. *Morfe*.
- 167. *Dugon*.
- Fish-tailed Walrus*.
- 168. *Lamentin*.
- 169. *Manati*.
- 170. *Sea-ape*.

- 1. *Trichechus Rosmarus*.
- 2. *Trichechus Dugon*.
- 3. *Trichechus Manatus*.
- α. *T. Manatus australis*.
- β. *T. Manatus borealis*.
- γ. *T. Manatus Siren*.

C A T A L O G U E.

III. F E R Æ.

S E A L.

171. Urfine Seal.
172. Bottle-nosed Seal.
173. Maned Seal.
174. Common Seal.
175. Bothnic Common Seal.
176. Siberian Common Seal.
177. Caspian Common Seal.
178. Hooded Seal.
179. Swartfide.
180. Bedlemer.
181. Neitsek.
182. Newfoundland Seal.
183. Klapmus.
184. Great Seal.
185. Little Seal.
186. Chilese Seal.
187. Long-necked Seal.
188. Falkland Seal.
189. Parsons Seal.
190. Harnessed Seal.
191. Wooly Seal.
192. Speckled Seal.
193. Spotted Seal.
194. Black Seal.

D O G.

- Faithful Dog.
195. Shepherds Dog.
 196. Pomeranian Dog.
 197. Siberian Dog.
 198. Iceland Dog.
 199. Great Water Dog.

xiii

P H O C A.

1. *Phoca urfina*.
2. *Phoca leonina*.
3. *Phoca jubata*.
4. *Phoca vitulina*.
 - β. *P. vitulina botnica*.
 - γ. *P. vitulina fibirica*.
 - δ. *P. vitulina caspica*.
5. *Phoca monachus*.
6. *Phoca groenlandica*.
 - β. *P. groenlandica niger*.
7. *Phoca hispida*.
 - β. *P. hispida quadrata*.
8. *Phoca cristata*.
9. *Phoca barbata*.
10. *Phoca pusilla*.
11. *Phoca chilensis*.
12. *Phoca mutica*.
13. *Phoca australis*.
14. *Phoca testudo*.
15. *Phoca fasciata*.
16. *Phoca laniger*.
17. *Phoca punctata*.
18. *Phoca maculata*.
19. *Phoca nigra*.

xiv

C A N I S.

1. *Canis familiaris*.
 - α. *Canis domesticus*.
 - β. *Canis pomeranus*.
 - γ. *Canis fibericus*.
 - δ. *Canis islandicus*.
 - ε. *Canis aquaticus major*.

OF THE M A M M A L I A.

- | | |
|--------------------------------|------------------------------------|
| 200. Lesser Water Dog. | ζ. <i>Canis aquaticus minor.</i> |
| 201. Pyrame. | η. <i>Canis brevipilis.</i> |
| *. King Charles's Spaniel. | *. <i>C. brevip. regalis.</i> |
| **. French Pyrame. | **. <i>C. brevip. gallicus.</i> |
| 202. Spaniel. | θ. <i>Canis extrarius.</i> |
| 203. Shock Dog. | ι. <i>Canis melitaeus.</i> |
| 204. Lion Dog. | κ. <i>Canis leoninus.</i> |
| 205. Little Danish Dog. | λ. <i>Canis variegatus.</i> |
| 206. Bastard Pug Dog. | μ. <i>Canis hybridus.</i> |
| 207. Pug Dog. | ν. <i>Canis fricator.</i> |
| a. Artois Dog. | a. <i>C. fricator gallicus.</i> |
| b. Alicant Dog. | b. <i>C. fricator hispanicus.</i> |
| 208. Bull Dog. | ξ. <i>Canis Molossus.</i> |
| 209. Mastiff. | ο. <i>Canis anglicus.</i> |
| 210. German Hound. | π. <i>Canis sagax.</i> |
| 211. Hound. | ϑ. <i>Canis gallicus.</i> |
| 212. Blood Hound. | σ. <i>Canis scoticus.</i> |
| 213. | τ. <i>Canis venaticus.</i> |
| 214. Pointer. | υ. <i>Canis avicularis.</i> |
| 215. Barbet. | φ. <i>Canis aquatilis.</i> |
| 216. Grey-hound. | χ. <i>Canis cursorius.</i> |
| 217. Irish Grey-hound. | ψ. <i>C. cursorius hibernicus.</i> |
| 218. Turkish Grey-hound. | ω. <i>C. cursorius turcicus.</i> |
| 219. Common Grey-hound. | αα. <i>Canis Grajus.</i> |
| 220. Rough Grey hound. | ββ. <i>C. Grajus hirsutus.</i> |
| 221. Italian Grey-hound. | γγ. <i>C. Grajus italicus.</i> |
| 222. Oriental Grey-hound. | **. <i>C. Grajus orientalis.</i> |
| 223. Naked Dog. | δδ. <i>Canis aegyptius.</i> |
| 224. Lurcher. | εε. <i>Canis Laniarius.</i> |
| 225. Rough Lurcher. | ζζ. <i>C. Laniarius aprinus.</i> |
| 226. Boar Lurcher. | ηη. <i>C. Laniarius fuillus.</i> |
| Turnspit. | θθ. <i>Canis Vertegus.</i> |
| 227. Straight-legged Turnspit. | a. <i>C. Vertegus rectus.</i> |
| 228. Crook-legged Turnspit. | b. <i>C. Vertegus valgus.</i> |
| 229. Shaggy Turnspit. | c. <i>C. Vertegus villosus.</i> |
| Alco. | ιι. <i>Canis americanus.</i> |

C A T A L O G U E

230. Fat Alco.
 231. Techichi.
 232. New-Holland Dog.
 233. Wolf.
 234. Yellow Wolf.
 235. White Wolf.
 236. Black Wolf.
 237. Striped Wolf.
 238. Mexican Wolf.
 239. White Mexican Wolf.
 240. Surinam Wolf.
 241. Striped Hyaena.
 242. Abyssinian Hyaena.
 243. Spotted Hyaena.
 244. Jackal.
 245. Cape Jackal.
 246. Barbary Jackal.
 247. Black Fox.
 248. Common Fox.
Brant Fox.
 249. American Brant Fox.
 250. Coal Fox.
 251. Corfac Fox.
 252. Karagan.
 253. Silvery Fox.
 254. Grey Fox.
Arctic Fox.
 255. White Arctic Fox.
 256. Bluish Arctic Fox.
 257. Cross Fox.
 258. Chilese Fox.
 259. Antartic Fox.
 260. Zerda.
- a. *C. americanus obefus.*
 - b. *C. americanus plancus.*
 2. *Canis antarticus.*
 3. *Canis Lupus.*
 - α. *C. Lupus flavus.*
 - β. *C. Lupus albus.*
 - γ. *C. Lupus niger.*
 - δ. *C. Lupus fasciatus.*
 4. *Can. Lupus mexicanus.*
 - β. *C. Lupus mexic. albus.*
 5. *Can. Lupus Thous.*
 6. *Canis Hyaena.*
 7. *C. Hyaena aethiopicus.*
 8. *C. Hyaena Crocuta.*
 9. *Canis aureus.*
 10. *Canis Mesomelas.*
 11. *Canis Adiva.*
 12. *C. Vulpes Lycaon.*
 13. *C. Vulpes vulgaris.*
 14. *C. Vulpes Alopex.*
 - α. *C. Vulp. Alopex americanus.*
 - β. *C. Vulp. Alopex europaeus.*
 15. *C. Vulpes Corfac.*
 16. *C. Vulpes Karagan.*
 17. *C. Vulpes cinereo-argenteus.*
 18. *C. Vulpes virginianus.*
 19. *C. Vulpes Lagopus.*
 - α. *C. Vulp. Lagop. albus.*
 - β. *C. Vulp. Lagop. cerulescens.*
 20. *C. Vulpes cruciger.*
 21. *C. Vulpes chilensis.*
 22. *C. Vulpes australis.*
 23. *Canis Cerdo.*

OF THE M A M M A L I A.

C A T.

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F E L I S.

* With long tails, and plain ears.

261. Lion.	1. Felis Leo.
262. Tiger.	2. Felis Tigris.
263. Panther.	3. Felis Pardus.
264. Ounce.	4. Felis Uncia.
265. Leopard.	5. Felis Leopardus.
266. Lesser Leopard.	6. Felis Leopardalis.
267. Jaguar.	7. Felis Onca.
268. Ocelot.	8. Felis Pardalis.
269. Guepard.	9. Felis jubata.
270. Jaguarete.	10. Felis discolor.
271. Puma.	11. Felis concolor.
272. Cougar.	12. Felis Cougar.
273. Margay.	13. Felis tigrina.
274. Mexican Tiger-cat.	14. Felis mexicana.
275. Bengal Tiger-cat.	15. Felis bengalensis.
276. Cape Tiger-cat.	16. Felis capensis.
277. Manul.	17. Felis Manul.
278. Serval.	18. Felis Serval.
Common Cat.	19. Felis Catus.
279. Wild Cat.	α. F. Catus ferus.
280. Domestic Cat.	β. F. Catus domesticus.
281. Angora Cat.	γ. F. Catus angorensis.
282. Tortoise-shell Cat.	δ. F. Catus hispanicus.
283. Blue Cat.	ε. F. Catus caeruleus.
284. Red Cat.	ζ. F. Catus ruber.
285. Chinese Cat.	η. F. Catus sinensis.
286. Long headed Cat.	θ. F. Catus aureus.
287. Saca.	ι. F. Catus madagascarensis.

** L Y N X E S.

L Y N C E S.

With short tails, and pencilled ears.

288. Caspian Lynx.	1. Lynx Chaus.
289. Mountain Lynx.	2. Lynx montana.

C A T A L O G U E

- 290. Persian Lynx.
- 291. Bengal Lynx.
- 292. Booted Lynx.
- 293. Barbary Lynx.
- 294. Common Lynx.
- 295. White Lynx.
- 296. Yellow Lynx.
- 297. Thibet Lynx.
- 298. Canadian Lynx.
- 299. American Lynx.

- 3. Lynx Caracal.
- 4. Lynx bengalensis.
- 5. Lynx nubienfis.
- 6. Lynx lybienfis.
- 7. Lynx vulgaris.
- β. Lynx vulg. alba.
- γ. Lynx vulg. melina.
- δ. Lynx vulg. maculata.
- 8. Lynx canadensis.
- 9. Lynx rufa.

F I T C H E T.

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V I V E R R A.

- 300. Egyptian Ichneumon.
- 301. Indian Ichneumon.
- 302. Cafrarian Ichneumon.
- 303. African Ichneumon.
- 304. Zenik.
- 305. Surikate.
- 306. Coati.
- 307. Coati-mondi.
- 308. Coasse.
- 309. Quasje.
- 310. Striped Skunk.
- 311. White Skunk.
- 312. Conepatl.
- 313. Zorilla.
- 314. Mapurito.
- 315. Grifon.
- 316. Ceylon Fitchet.
- 317. Cape Fitchet.
- 318. Civet.
- 319. Zibet.
- 320. Hermaphrodite Fitchet.
- 321. Spanish Genet.
- 322. St Germain's Genet.
- 323. Leverian Genet.

- 1. Viverra Ichneumon.
- 2. Viverra Mungo.
- 3. Viverra cafra.
- 4. Viverra Nems.
- 5. Viverra Zenik.
- 6. Viverra tetradactyla.
- 7. Viverra nasua.
- 8. Viverra narica.
- 9. Viverra vulpecula.
- 10. Viverra Quasje.
- 11. Viverra Putorius.
- 12. Viverra Mephitis.
- 13. Viverra Conepatl.
- 14. Viverra Zorilla.
- 15. Viverra Mapurito.
- 16. Viverra vittata.
- 17. Viverra zeylanica.
- 18. Viverra capensis.
- 19. Viverra Civetta.
- 20. Viverra Zibetha.
- 21. Viverra hermaphrodita.
- 22. Viverra Genetta.
- 23. Viverra gallica.
- 24. Viverra annulata.

OF THE M A M M A L I A.

- | | |
|-----------------------|---------------------------|
| 324. Foffane. | 25. Viverra Foffa. |
| 325. Bizaam. | 26. Viverra tigrina. |
| 326. Poto. | 27. Viverra caudivolvula. |
| 327. Kinkajou. | 28. Viverra prehenfilis. |
| 328. Ratel. | 29. Viverra mellivora. |
| 329. Striped Fitchet. | 30. Viverra fasciata. |
| 330. Malayan Fitchet. | 31. Viverra malaccensis. |
| 331. Spotted Fitchet. | 32. Viverra maculata. |

WEASEL.

xvii

MUSTELA.

Divided into

* OTTERS.

LUTRÆ.

- | | |
|-----------------------|-------------------------|
| 332. Sea Otter. | 1. Lutra Lutris. |
| 333. Brazilian Otter. | 2. Lutra brasiliensis. |
| 334. Saricovienne. | 3. Lutra paraguayensis. |
| 335. Chilese Otter. | 4. Lutra chilensis. |
| 336. Common Otter. | 5. Lutra piscatoria. |
| 337. Canadian Otter. | 6. Lutra canadensis. |
| 338. Lesser Otter. | 7. Lutra fulva. |
| 339. Cayenne Otter. | 8. Lutra guianensis. |
| 340. Minx. | 9. Lutra Minx. |

** WEASELS.

MUSTELÆ.

- | | |
|----------------------|-----------------------------|
| 341. Tayra. | 1. Mustela barbara. |
| 342. Galera. | 2. Mustela Galera. |
| 343. Vanfire. | 3. Mustela afra. |
| 344. Pekan. | 4. Mustela canadensis. |
| 345. Vifon. | 5. Mustela Vifon. |
| 346. Common Martin. | 6. Mustela Foina. |
| 347. Pine Martin. | 7. Mustela Martes. |
| 348. Guiana Martin. | 8. Mustela guianensis. |
| 349. Cayenne Martin. | 9. Mustela laniger. |
| 350. Sable. | 10. Mustela Zibellina. |
| 351. White Sable. | β. M. Zibellina alba. |
| 352. American Sable. | 11. M. Zibellina americana. |
| 353. Black Sable. | 12. M. Zibellina nigra. |

C A T A L O G U E

- 354. Polecat.
- 355. Ferret.
- 356. Sarmatian Weasel.
- 357. Siberian Weasel.
Ermine.
- 358. Stoat.
- 359. White Ermine.
- 360. Common Weasel.
- 361. Snow Weasel.
- 362. Yellow Weasel.
- 363. Chilese Weasel.

- 13. *Mustela Putoria*.
- 14. *Mustela Furo*.
- 15. *Mustela farmatica*.
- 16. *Mustela sibirica*.
- 17. *Mustela Erminea*.
 α . *M. Erminea aestiva*.
 β . *M. Erminea hyberna*.
- 18. *Mustela vulgaris*.
 β . *M. vulg. nivalis*.
- 19. *Mustela melina*.
- 20. *Mustela Quiqui*.

B E A R.

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U R S U S.

- Common Bear.
- 364. Black Bear.
- 365. Brown Bear.
- 366. Grey Bear.
- 367. Variegated Bear.
- 368. White Bear.
- 369. Polar Bear.
- 370. American Bear.
- 371. Sand Bear.
- 372. Common Badger.
- 373. White Badger.
- 374. Spotted Badger.
- 375. American Badger.
- 376. Indian Badger.
- 377. Racoon.
- 378. White Racoon.
- 379. Wolverine.
- 380. Glutton.
- 381. White Glutton.

- 1. *Ursus Arctos*.
 α . *U. Arctos niger*.
 β . *U. Arctos fuscus*.
 γ . *U. Arctos griseus*.
 δ . *U. Arctos variegatus*.
 ϵ . *U. Arctos albus*.
- 2. *Ursus maritimus*.
- 3. *Ursus americanus*.
- 4. *Ursus tetradactylus*.
- 5. *Ursus Meles*.
 β . *U. Meles alba*.
 γ . *U. Meles maculata*.
- 6. *Ursus labradorius*.
- 7. *Ursus indicus*.
- 8. *Ursus Lotor*.
 β . *U. Lotor melinus*.
- 9. *Ursus luscus*.
- 10. *Ursus Gulo*.
 β . *U. Gulo albus*.

O P O S S U M.

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D I D E L P H I S.

- 382. Amboina Opossum.
- 383. Brazilian Opossum.

- 1. *Didelphis marsupialis*.
- 2. *Didelphis Philander*.

OF THE M A M M A L I A.

384. Sarigue.
385. Molucca Opossum.
386. Virginian Opossum.
387. Cayopollin.
388. Murine Opossum.
389. Guiana Opossum.
390. Surinam Opossum.
391. Cayenne Opossum.
392. New-Holland Opossum.
393. Short-tailed Opossum.
394. Oriental Opossum.
395. Javan Opossum.
396. Kanguru.
397. Phillips Opossum.
398. Vulpine Opossum.
399. Spotted Opossum.
400. Flying Opossum.

3. Didelphis Opossum.
4. Didelphis molucca.
5. Didelphis virginiana.
6. Didelphis Cayopollin.
7. Didelphis murina.
8. Didelphis guianensis.
9. Didelphis dorfigera.
10. Didelphis cancrivora.
11. Didelphis caudivolvula.
12. Didelphis brachyura.
13. Didelphis orientalis.
14. Didelphis Brunii.
15. Didelphis gigantea.
16. Didelphis tridactyla.
17. Didelphis vulpecula.
18. Didelphis maculata.
19. Didelphis volans.

M O L E.

- European Mole.
401. Black Mole.
402. Variegated Mole.
403. White Mole.
404. Grey Mole.
405. American Mole.
406. Crested Mole.
407. Long-tailed Mole.
408. Brown Mole.
409. Red Mole.
410. Gilded Mole.

S H R E W.

411. Minute Shrew.
412. Musky Shrew.
413. Water Shrew.
414. Javan Shrew.

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T A L P A.

1. Talpa europaea.
- α. Talpa europ. nigra.
- β. Talpa europ. variegata.
- γ. Talpa europ. alba.
- δ. Talpa europ. cinerea.
2. Talpa flava.
3. Talpa cristata.
4. Talpa longicaudata.
5. Talpa fusca.
6. Talpa rubra.
7. Talpa aurea.

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S O R E X.

1. Sorex minutus.
2. Sorex moschatus.
3. Sorex fodiens.
4. Sorex murinus.

C A T A L O G U E

- 415. Fetid Shrew.
- 416. Labradore Shrew.
- 417. Grey Labradore Shrew.
- 418. Surinam Shrew.
- 419. Timid Shrew.
- 420. Brasilian Shrew.
- 421. Pigmy Shrew.
- 422. Blue Shrew.
- 423. Mexican Shrew.
- 424. White-footed Shrew.
- 425. Square-tailed Shrew.
- 426. Carinated Shrew.
- 427. Uniform Shrew.

- 5. *Sorex Araneus*.
- 6. *Sorex arcticus*.
 β . *Sorex arct. cinereus*.
- 7. *Sorex furinamensis*.
- 8. *Sorex pusillus*.
- 9. *Sorex brasiliensis*.
- 10. *Sorex exilis*.
- 11. *Sorex cerulaeus*.
- 12. *Sorex mexicanus*.
- 13. *Sorex albipes*.
- 14. *Sorex quadricaudatus*.
- 15. *Sorex liricaudatus*.
- 16. *Sorex unicolor*.

U R C H I N.

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ERINACEUS.

- 428. Common Urchin.
- 429. Guiana Urchin.
- 430. Malacca Urchin.
- 431. Siberian Urchin.
- 432. Tendrac.
- 433. Tanrec.

- 1. *Erinaceus europaeus*.
- 2. *Erinaceus inauris*.
- 3. *Erinaceus malaccensis*.
- 4. *Erinaceus auritus*.
- 5. *Erinaceus fetosus*.
- 6. *Erinaceus ecaudatus*.

I V. G L I R E S.

P O R C U P I N E.

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HYSTRIX.

- Crested Porcupine.
- 434. Italian Porcupine.
- 435. Indian Porcupine.
 Brasilian Porcupine.
- 436. Larger Brasilian Porcupine.
- 437. Lesser Brasilian Porcupine.
- 438. Mexican Porcupine.
- 439. Canadian Porcupine.
- 440. White Canadian Porcupine.
- 441. Long-tailed Porcupine.
- 442. Brawny Porcupine.

- 1. *Hystrix cristata*.
 α . *H. cristata europaea*.
 β . *H. cristata indica*.
- 2. *Hystrix prehensilis*.
 α . *H. prehensilis major*.
 β . *H. prehensilis minor*.
- 3. *Hystrix mexicana*.
- 4. *Hystrix dorsata*.
 β . *H. dorsata alba*.
- 5. *Hystrix macroura*.
 β . *Hystrix torosa*.

C A V Y.

OF THE MAMMALIA.

C A V Y. xxiv C A V I A.

- | | |
|-----------------------|-----------------------------------|
| 443. Paca. | 1. Cavia Paca. |
| 444. White Paca. | β . C. Paca alba. |
| 445. Akouchy. | 2. Cavia Acuschy. |
| Agouti. | 3. Cavia Agouti. |
| 446. Lesser Agouti. | α . C. Agouti cunicularis. |
| 447. Larger Agouti. | β . C. Agouti leporina. |
| 448. American Agouti. | γ . C. Agouti americana. |
| 449. Aperea. | 4. Cavia Aperea. |
| 450. Black Aperea. | β . C. Aperea nigra. |
| 451. Cobaya. | 5. Cavia Cobaya. |
| 452. Patagonian Cavy. | 6. Cavia Magellanica. |
| 453. Capibara. | 7. Cavia Capybara. |

B E A V E R. xxv C A S T O R.

- | | |
|----------------------|--------------------------------|
| 454. Common Beaver. | 1. Castor Fiber. |
| 455. White Beaver. | α . C. Fiber albus. |
| 456. Terrier Beaver. | β . C. Fiber solitarius. |
| 457. Chilese Beaver. | 2. Castor huidobrius. |

MURINE QUADRUPEDS. xxvi M U S.

Divided into

* B E A V E R - R A T S. M Y O C A S T O R E S.

- | | |
|-------------------------|--------------------------|
| 458. Webbed Beaver-rat. | 1. Myocastor Coypus. |
| 459. Musquash. | 2. Myocastor zibethicus. |

** R A T S A N D M I C E. M U R E S.

Subdivided into

† *Myofuri*.—Having naked round tails.

- | | |
|-----------------------------------|----------------------------------|
| Piloris. | 1. Mus Pilorides. |
| 460. White Piloris. | α . M. Pilorides albidus. |
| 461. Black Piloris. | β . M. Pilorides fulvus. |
| 462. Caraco. | 2. Mus Caraco. |
| 463. American Rat. | 3. Mus americanus. |
| 464. Brown Rat. | 4. Mus decumanus. |
| 465. Black Rat. | 5. Mus Rattus. |
| 466. Small Rat. | β . M. Rattus minor. |
| 467. Common Mouse. | 6. Mus Musculus. |
| 468. Varieties of the Com. Mouse. | β . M. Musculi varietates. |

C A T A L O G U E

- | | |
|-----------------------------|---|
| 469. Field Mouse. | 7. <i>Mus sylvaticus</i> . |
| 470. White Field Mouse. | β . <i>M. sylvaticus albus</i> . |
| 471. Harvest Mouse. | 8. <i>Mus mefforius</i> . |
| 472. Rustic Mouse. | 9. <i>Mus agrarius</i> . |
| 473. American Rustic Mouse. | β . <i>M. agrarius americanus</i> . |
| 474. Minute Mouse. | 10. <i>Mus minutus</i> . |
| 475. Yellow Minute Mouse. | β . <i>M. minutus flavus</i> . |
| 476. Shrew-like Mouse. | 11. <i>Mus forcinus</i> . |
| 477. Wandering Mouse. | 12. <i>Mus vagus</i> . |
| 478. Beech Mouse. | 13. <i>Mus betulinus</i> . |
| 479. Dwarf Mouse. | 14. <i>Mus pumilio</i> . |
| 480. Striped Mouse. | 15. <i>Mus striatus</i> . |
| 481. Cherofo. | β . <i>Mus moschatus</i> . |
| 482. Barbary Mouse. | 16. <i>Mus barbarus</i> . |
| 483. Mexican Mouse. | 17. <i>Mus mexicanus</i> . |

†† *Cunicularii*.—Having hairy round tails.

- | | |
|-----------------------------|--|
| 484. Virginian Mouse. | 18. <i>Mus virginianus</i> . |
| 485. Rock Mouse. | 19. <i>Mus saxatilis</i> . |
| 486. Blue Mouse. | 20. <i>Mus cyanus</i> . |
| 487. Water Rat. | 21. <i>Mus amphibius</i> . |
| 488. Meadow Water Rat. | β . <i>M. amphib. terrestris</i> . |
| 489. Marsh Water Rat. | γ . <i>M. amphib. paludofus</i> . |
| 490. Black Water Rat. | δ . <i>M. amphib. niger</i> . |
| 491. Spotted Water Rat. | ϵ . <i>M. amphib. maculatus</i> . |
| 492. Garlic Mouse. | 22. <i>Mus aliaris</i> . |
| 493. Red Mouse. | 23. <i>Mus rutilus</i> . |
| 494. Lesser Red Mouse. | β . <i>M. rutilus minor</i> . |
| 495. Gregarious Mouse. | 24. <i>Mus gregalis</i> . |
| 496. Economic Mouse. | 25. <i>Mus oeconomus</i> . |
| 497. Laland Mouse. | β . <i>Mus glareolus</i> . |
| 498. Woolly Mouse. | 26. <i>Mus laniger</i> . |
| 499. Meadow Mouse. | 27. <i>Mus arvalis</i> . |
| 500. Blackish Meadow Mouse. | β . <i>M. arvalis nigricans</i> . |
| 501. Social Mouse. | 28. <i>Mus socialis</i> . |
| 502. Rambling Mouse. | 29. <i>Mus lagurus</i> . |
| 503. Collared Mouse. | 30. <i>Mus torquatus</i> . |
| 504. Lemming. | 31. <i>Mus Lemmus</i> . |

OF THE M A M M A L I A.

- 505. Siberian Lemming.
- 506. Labradore Moufe.
- 507. Lena Moufe.
- 508. Kamtschatka Moufe.

- β. M. Lemmus fibiricus.*
- 32. *Mus hudsonius.*
- 33. *Mus lenae.*
- 34. *Mus Tschelag.*

*** HAMSTERS.

- 509. Siberian Hamster.
- 510. German Hamster.
- 511. Black German Hamster.
- 512. Sand Hamster.
- 513. Rice Hamster.
- 514. Songar Hamster.
- 515. Baraba Hamster.

CRICETI.

- 1. *Cricetus Acredula.*
- 2. *Cricetus germanicus.*
- β. Cricetus german. niger.*
- 3. *Cricetus arenarius.*
- 4. *Cricetus phaeus.*
- 5. *Cricetus Songarus.*
- 6. *Cricetus Furunculus.*

**** MOLE-RATS.

- 516. Russian Mole-rat.
- 517. Black Russian Mole-rat.
- 518. Cape Mole-rat.
- 519. African Mole-rat.
- 520. Daurian Mole-rat.
- 521. Blind Mole-rat.

MYOTALPÆ.

- 1. *Myotalpa talpina.*
- β. Myotalpa talpina nigra.*
- 2. *Myotalpa capensis.*
- 3. *Myotalpa maritima.*
- 4. *Myotalpa Aspalax.*
- 5. *Myotalpa Typhla.*

M A R M O T.

- 522. Common Marmot.
- 523. Monax.
- 524. Bobak.
- 525. Canadian Marmot.
- 526. Hoary Marmot.
- 527. Souflik.
- 528. Zifel.
- 529. Zemni.
- 530. Gundi.
- 531. Hudson's Marmot.
- 532. Chilese Marmot.

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ARCTOMYS.

- 1. *Arctomys Marmota.*
- 2. *Arctomys Monax.*
- 3. *Arctomys Bobac.*
- 4. *Arctomys Empetra.*
- 5. *Arctomys pruinosa.*
- 6. *Arctomys Suslica.*
- 7. *Arctomys Citillus.*
- 8. *Arctomys Zemni.*
- 9. *Arctomys Gundi.*
- 10. *Arctomys hudsonia.*
- 11. *Arctomys maulina.*

SQUIRREL.

xxviii

SCIURUS.

Divided into,

* CLIMBING SQUIRRELS.

SCIURI SCANDENTES.

Which have no flying membranes.

Common Squirrel.

- 1. *Sciurus vulgaris.*

C A T A L O G U E

- | | |
|------------------------------------|-----------------------------------|
| 533. Red Common Squirrel. | <i>α. S. vulgaris rufus.</i> |
| 534. White-tailed Common Squirrel. | <i>β. S. vulgaris leucourus.</i> |
| 535. Varying Common Squirrel. | <i>γ. S. vulgaris varius.</i> |
| 536. Black Common Squirrel. | <i>δ. S. vulgaris niger.</i> |
| 537. White Common Squirrel. | <i>ε. S. vulgaris albus.</i> |
| 538. Silvery Common Squirrel. | <i>ζ. S. vulgaris argenteus.</i> |
| 539. White legged Squirrel. | 2. <i>Sciurus albipes.</i> |
| 540. Black Squirrel. | 3. <i>Sciurus niger.</i> |
| 541. White-nosed Black Squirrel. | <i>β. S. niger albirostris.</i> |
| 542. Vulpine Squirrel. | 4. <i>Sciurus vulpinus.</i> |
| 543. White Vulpine Squirrel. | <i>β. S. vulpinus albus.</i> |
| 544. Grey Squirrel. | 5. <i>Sciurus cinereus.</i> |
| 545. Labradore Squirrel. | 6. <i>Sciurus hudsonius.</i> |
| 546. Carolina Squirrel. | 7. <i>Sciurus carolinensis.</i> |
| 547. Virginian Squirrel. | 8. <i>Sciurus virginianus.</i> |
| 548. Persian Squirrel. | 9. <i>Sciurus persicus.</i> |
| 549. Georgian Squirrel. | 10. <i>Sciurus anomalus.</i> |
| 550. Javan Squirrel. | 11. <i>Sciurus bicolor.</i> |
| 551. Ruddy Squirrel. | 12. <i>Sciurus erythraeus.</i> |
| 552. Ceylon Squirrel. | 13. <i>Sciurus macrourus.</i> |
| 553. Malabar Squirrel. | 14. <i>Sciurus maximus.</i> |
| 554. Abyssinian Squirrel. | 15. <i>Sciurus abyssinicus.</i> |
| 555. Bombay Squirrel. | 16. <i>Sciurus indicus.</i> |
| 556. Fair Squirrel. | 17. <i>Sciurus flavus.</i> |
| 557. Palm Squirrel. | 18. <i>Sciurus palmarum.</i> |
| 558. Barbary Squirrel. | 19. <i>Sciurus getulus.</i> |
| 559. Plantain Squirrel. | 20. <i>Sciurus Badjing.</i> |
| Ground Squirrel. | 21. <i>Sciurus striatus.</i> |
| 560. Asiatic Ground Squirrel. | <i>α. S. striatus asiaticus.</i> |
| 561. American Ground Squirrel. | <i>β. S. striatus americanus.</i> |
| 562. Brazilian Squirrel. | 22. <i>Sciurus aestuans.</i> |
| 563. Striped Brazilian Squirrel. | <i>β. S. aestuans fasciatus.</i> |
| 564. Carnatic Squirrel. | 23. <i>Sciurus dschinschicus.</i> |
| 565. Varied Squirrel. | 24. <i>Sciurus variegatus.</i> |
| 566. Smaller Varied Squirrel. | <i>β. S. variegatus minor.</i> |
| 567. Chilese Squirrel. | 25. <i>Sciurus Degus.</i> |
| 568. Mexican Squirrel. | 26. <i>Sciurus mexicanus.</i> |

OF THE M A M M A L I A.

- | | |
|---------------------------|--------------------------------------|
| 569. American Squirrel. | 27. <i>Sciurus scrotalis</i> . |
| 570. Guiana Squirrel. | 28. <i>Sciurus bancrofti</i> . |
| 571. Cayenne Squirrel. | 29. <i>Sciurus guajanensis</i> . |
| 572. Madagascar Squirrel. | 30. <i>Sciurus madagascarensis</i> . |
| 573. Cape Squirrel. | 31. <i>Sciurus capensis</i> . |

** FLYING-SQUIRRELS.

PETAURI.

Have an extended flying membrane.

- | | |
|------------------------------------|-------------------------------------|
| 574. American Flying-Squirrel. | 1. <i>Petaurus volucella</i> . |
| 575. Virginian Flying Squirrel. | 2. <i>Petaurus virginianus</i> . |
| 576. Labradore Flying-Squirrel. | 3. <i>Petaurus hudsonius</i> . |
| 577. European Flying-Squirrel. | 4. <i>Petaurus volans</i> . |
| 578. Java Flying-Squirrel. | 5. <i>Petaurus fagitta</i> . |
| Indian Flying Squirrel. | 6. <i>Petaurus petaurista</i> . |
| 579. Red Indian Flying-Squirrel. | α. <i>P. petaurista castaneus</i> . |
| 580. Black Indian Flying-Squirrel. | β. <i>P. petaurista niger</i> . |
| 581. Southern Flying-Squirrel. | 7. <i>Petaurus australis</i> . |
| 582. Philips Flying-Squirrel. | 8. <i>Petaurus norfolcensis</i> . |

DORMOUSE.

xxix

MYOXUS.

- | | |
|-----------------------|--------------------------------|
| 583. Hoary Dormouse. | 1. <i>Myoxus Glis</i> . |
| 584. Wood Dormouse. | 2. <i>Myoxus Dryas</i> . |
| 585. Garden Dormouse. | 3. <i>Myoxus Nitela</i> . |
| 586. Common Dormouse. | 4. <i>Myoxus Muscardinus</i> . |

JERBOA.

xxx

DIPUS.

- | | |
|-------------------------------|----------------------------------|
| 587. Common Jerboa. | 1. <i>Dipus jaculus</i> . |
| 588. Arabian Jerboa. | 2. <i>Dipus fagitta</i> . |
| A. Egyptian Jerboa. | A. <i>Dipus aegyptius</i> . |
| B. Siberian Jerboa. | B. <i>Dipus fibiricus</i> . |
| 589. Great Siberian Jerboa. | a. <i>D. fibiricus major</i> . |
| 590. Middle Siberian Jerboa. | b. <i>D. fibiricus medius</i> . |
| 591. Smaller Siberian Jerboa. | c. <i>D. fibiricus minor</i> . |
| 592. Pigmy Siberian Jerboa. | d. <i>D. fibiricus pumilio</i> . |
| 593. Cape Jerboa. | 3. <i>Dipus cafer</i> . |
| 594. Caspian Jerboa. | 4. <i>Dipus meridianus</i> . |
| 595. Marth Jerboa. | 5. <i>Dipus tamaricinus</i> . |
| 596. Labradore Jerboa. | 6. <i>Dipus labradorius</i> . |
| 597. Circassian Jerboa. | 7. <i>Dipus circassicus</i> . |

H A R E.

C A T A L O G U E

H A R E.

xxx

L E P U S.

* With short tails.

- | | |
|-----------------------------|--|
| 598. Peruvian Hare. | 1. <i>Lepus Viscaccia.</i> |
| 599. Common Hare. | 2. <i>Lepus timidus.</i> |
| 600. Horned Common Hare. | β. <i>L. timidus cornutus.</i> |
| 601. Yellow Common Hare. | γ. <i>L. timidus melinus.</i> |
| 602. Varying Hare. | 3. <i>Lepus variabilis.</i> |
| 603. Spurious Varying Hare. | β. <i>L. variabilis hybridus.</i> |
| 604. Black Hare. | 4. <i>Lepus niger.</i> |
| 605. American Hare. | 5. <i>Lepus americanus.</i> |
| 606. Baikal Hare. | 6. <i>Lepus Tolai.</i> |
| 607. Chilese Hare. | 7. <i>Lepus minimus.</i> |
| 608. Cape Hare. | 8. <i>Lepus capensis.</i> |
| Rabbit. | 9. <i>Lepus Cuniculus.</i> |
| 609. Wild Rabbit. | α. <i>L. Cuniculus ferus.</i> |
| 610. Black Tame Rabbit. | β. <i>L. Cuniculus domesticus niger.</i> |
| 611. White Tame Rabbit. | γ. <i>L. Cuniculus domesticus albus.</i> |
| 612. Pied Tame Rabbit. | δ. <i>L. Cunic. domest. variegatus.</i> |
| 613. Silvery Tame Rabbit. | ε. <i>L. Cunic. domest. argenteus.</i> |
| 614. Hooded Rabbit. | 10. <i>Lepus saccatus.</i> |
| 615. Angora Rabbit. | 11. <i>Lepus sericeus.</i> |

** Having no tails.

- | | |
|----------------------|--------------------------------|
| 616. Brazilian Hare. | 12. <i>Lepus brasiliensis.</i> |
| 617. Calling Hare. | 13. <i>Lepus pusillus.</i> |
| 618. Mountain Hare. | 14. <i>Lepus alpinus.</i> |
| 619. Ogotona Hare. | 15. <i>Lepus Ogotona.</i> |

A S H K O K O.

xxxii

H Y R A X.

- | | |
|----------------------|---------------------------|
| 620. Cape Ashkoko. | 1. <i>Hyrax capensis.</i> |
| 621. Syrian Ashkoko. | 2. <i>Hyrax syriacus.</i> |

V. P E C O R A.

C A M E L.

xxxiii

C A M E L U S.

- | | |
|----------------------|--------------------------------|
| 622. Arabian Camel. | 1. <i>Camelus Dromedarius.</i> |
| 623. Swift Camel. | β. <i>Camelus dromos.</i> |
| 624. Bactrian Camel. | 2. <i>Camelus bactrianus.</i> |
| 625. Mixed Camel. | β. <i>Camelus hybridus.</i> |
| 626. Glama. | 3. <i>Camelus Glama.</i> |

OF THE MAMMALIA.

- | | |
|-------------------|-----------------------|
| 627. Guanaco. | 4. Camelus Huanacus. |
| 628. Chilihueque. | 5. Camelus arcucanus. |
| 629. Vicugna. | 6. Camelus Vicugna. |
| 630. Pacos. | 7. Camelus Paco. |

M U S K.

631. Thibet Musk.
 632. Indian Musk.
 633. Pigmy Musk.
 634. Striped Pigmy Musk.
 635. Memina.
 636. Javan Musk.
 637. Brazilian Musk.
 638. Formosan Musk.

xxxiv

M O S C H U S.

1. Moschus moschiferus.
 2. Moschus indicus.
 3. Moschus pygmaeus.
 β. M. pygmaeus leverianus.
 4. Moschus Memina.
 5. Moschus javanicus.
 6. Moschus americanus.
 7. Moschus sinensis.

D E E R.

xxxv

C E R V U S.

* With palmated horns.

- | | |
|---------------------------|-------------------------------|
| 639. Elk. | 1. Cervus Alces. |
| 640. Irish Elk. | β. C. Alces fossilis. |
| Rein Deer. | 2. Cervus Tarandus. |
| 641. Common Rein Deer. | α. C. Tarandus Rangifer. |
| 642. Greenland Rein Deer. | β. C. Tarandus groenlandicus. |
| 643. Canadian Rein Deer. | γ. C. Tarandus Caribou. |
| 644. Fallow Deer. | 3. Cervus Dama. |

** With rounded horns.

- | | |
|----------------------------|----------------------------|
| 645. Stag. | 4. Cervus Elaphus. |
| 646. Maned Stag. | β. C. Elaphus Hippelaphus. |
| 647. Corsican Stag. | γ. C. Elaphus corsicanus. |
| 648. Canadian Stag. | δ. C. Elaphus canadensis. |
| 649. Chinese Stag. | ι. C. Elaphus minutus. |
| 650. Virginian Deer. | 5. Cervus virginianus. |
| Axis. | 6. Cervus Axis. |
| 651. Spotted Axis. | α. C. Axis maculatus. |
| 652. Middle Axis. | β. C. Axis unicolor. |
| 653. White Axis. | γ. C. Axis albus. |
| 654. Large Axis. | δ. C. Axis major. |
| 655. Porcine Deer. | 7. Cervus porcinus. |
| 656. Spotted Porcine Deer. | β. C. porcinus maculatus. |

C A T A L O G U E

- 657. Muntjac.
- 658. Roe.
- 659. White Roe.
- 660. Aha.
- 661. Mexican Deer.

- 8. *Cervus Muntjac.*
- 9. *Cervus Capreolus.*
 β . *C. Capreolus albus.*
- 10. *Cervus pygargus.*
- 11. *Cervus mexicanus.*

*** Uncertain species.

- 662. Tema-maçame.
- 663. Cuguacu-apara.
- 664. Cuguacu-ete.
- 665. Biche des bois.
- 666. Biche des puletuviers.
- 667. Mazame.
- 668. Cariacou.
- 669. Barallou Hind.
- 670. Wood Hind.
- 671. Savanna Hind.
- 672. Indian Deer.
- 673. Squinaton.
- 674. Grey Deer.
- 675. Unknown Deer.

- α . *Cervus Temama.*
- β . *Cervus Cuguapara.*
- γ . *Cervus Cuguete.*
- δ . *Cervus sylvaticus.*
- ϵ . *Cervus paludofus.*
- ζ . *Cervus Mazame.*
- η . *Cervus Cariacou.*
- θ . *Cervus Barallou.*
- ι . *Cervus nemorofus.*
- κ . *Cervus pratenfis.*
- λ . *Cervus indicus.*
- μ . *Cervus Squinaton.*
- ν . *Cervus guineensis.*
- ξ . *Cervus anomalus.*

G I R A F F E.

- 676. *Camelopardalis.*

xxxvi *CAMELOPARDALIS.*

- 1. *Camelopardalis Giraffa.*

A N T E L O P E.

- 677. Blue Antelope.
- 678. Lerwee.
- 679. Chamois.
- 680. Nanguer.
- 681. Nagor.
- 682. Biggel.
- 683. Nylgau.
- 684. Saiga.
- 685. Tzeiran.
- 686. Persian Antelope.
- 687. White faced Antelope.
- 688. Springer Antelope.
- 689. Barbary Autelope.

xxxvii *ANTILOPE*

- 1. *Antilope leucophaea.*
- 2. *Antilope Lerwia.*
- 3. *Antilope Rupicapra.*
- 4. *Antilope Dama.*
- 5. *Antilope redunca.*
- 6. *Antilope Tragocamelus.*
- 7. *Antilope picta.*
- 8. *Antilope Saiga.*
- 9. *Antilope gutturofa.*
- 10. *Antilope subgutturofa.*
- 11. *Antilope pygarga.*
- 12. *Antilope faltans.*
- 13. *Antilope Dorcas.*

OF THE M A M M A L I A.

690. Kevel.	14. Antilope Kevella.
691. Corine.	15. Antilope Corinna.
692. Bubalis.	16. Antilope Bubalis.
693. Koba.	17. Antilope Koba.
694. Gnou.	18. Antilope Gnu.
695. Pafan.	19. Antilope Oryx.
696. African Antelope.	20. Antilope Oreotragus.
697. Algazel.	21. Antilope Gazella.
698. Leucoryx.	22. Antilope Leucoryx.
699. Coudous.	23. Antilope Oreas.
700. Guib.	24. Antilope scripta.
701. Grimm.	25. Antilope Grimmia.
702. Guevel.	26. Antilope pygmaea.
703. Wood Antelope.	27. Antilope sylvatica.
704. Condoma.	28. Antilope Strepficeros.
705. Lidmee.	29. Antilope Cervicapra.

G O A T.

xxxviii

C A P R A.

706. Wild Goat.	1. Capra Aegagrus.
707. Common Goat.	2. Capra Hircus.
708. Angora Goat.	3. Capra angorensis.
709. Syrian Goat.	4. Capra mambrica.
710. African Goat.	5. Capra depressa.
711. Whidaw Goat.	6. Capra reversa.
712. Juda Goat.	7. Capra nana.
713. Capricorn.	8. Capra Capricornis.
714. Cabonas Goat.	9. Capra mutica.
715. Ibex.	10. Capra Ibex.
716. Caucasian Goat.	11. Capra caucasica.

S H E E P.

xxxix

O V I S.

Common Sheep.	1. Ovis Aries.
717. Hornless Sheep.	α. O. Aries anglica.
718. Dwarf Sheep.	β. O. Aries nana.
719. Rustic Sheep.	γ. O. Aries rustica.
720. Spanish Sheep.	δ. O. Aries hispanica.
721. Many-horned Sheep.	ε. O. Aries polycerata.
722. African Sheep.	ζ. O. Aries africana.
723. Wattled Sheep.	η. O. Aries guineensis.

C A T A L O G U E

- 724. Broad-tailed Sheep.
- 725. Fat-rumped Sheep.
- 726. Bucharian Sheep.
- 727. Long-tailed Sheep.
- 728. Cape Sheep.
- 729. Bearded Sheep.
- 730. Morvant.
- 731. Cretan Sheep.
- 732. Argali.
- 733. Corsican Argali.
- 734. Pudu.

O X.

Common Ox.

- A. Wild Ox.
- 735. Urus.
- 736. Bonafus.
- 737. Bifon.
- B. Domestic Ox.
- 738. European Ox.
- 739. Indian Ox.
- 740. Zebu.
- 741. Surat Ox.
- 742. Abyssinian Ox.
- 743. Boury.
- 744. Tinian Ox.
- 745. Lant.
- 746. Arnee.
- 747. American Bifon.
- 748. Musk Ox.
- 749. Grunting Ox.
- 750. Ghainouk.
- 751. Sarlyk.
- 752. Hornless Grunting Ox.
- 753. Buffalo.
- 754. Naked Buffalo.
- 755. Anoa.
- 756. Guavera.

- 9. *O. Aries laticaudata.*
- 1. *O. Aries steatopyga.*
- 2. *O. Aries bucharica.*
- 3. *O. Aries longicaudata.*
- 4. *O. Aries capensis.*
- 5. *O. Aries barbata.*
- 6. *O. Aries jubata.*
- 2. *Ovis Strepliceros.*
- 3. *Ovis Ammon.*
- β. *O. Ammon europaea.*
- 4. *Ovis Pudu.*

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B O S.

- 1. *Bos Taurus.*
- A. *B. Taurus ferus.*
- α. *B. Taurus Urus.*
- β. *B. Taurus Bonafus.*
- γ. *B. Taurus Bifon.*
- B. *B. Taurus domesticus.*
- δ. *B. Taurus europaeus.*
- ε. *B. Taurus indicus major.*
- ζ. *B. Taurus indicus minor.*
- η. *B. Taurus indicus minimus.*
- θ. *B. Taurus abessinicus.*
- ι. *B. Taurus madagascarensis.*
- κ. *B. Taurus tinianensis.*
- λ. *B. Taurus africanus.*
- 2. *Bos Arnee.*
- 3. *Bos americanus.*
- 4. *Bos moschatus.*
- 5. *Bos gruniens.*
- β. *B. gruniens Ghainouk.*
- γ. *B. gruniens Sarlyk.*
- δ. *B. gruniens ecornis.*
- 6. *Bos Bubalus.*
- β. *B. Bubalus feminudus.*
- γ. *B. Bubalus Anoa.*
- δ. *B. Bubalus Guavera.*

OF THE MAMMALIA.

- | | |
|----------------|-------------------------|
| 757. Cape Ox. | 7. <i>Bos caffer.</i> |
| 758. Baas. | 8. <i>Bos barbatus.</i> |
| 759. Dwarf Ox. | 9. <i>Bos pumilus.</i> |

VI. BELLUÆ.

HORSE.

xli

EQUUS.

- | | |
|----------------------|-----------------------------------|
| Common Horse. | 1. <i>Equus Caballus.</i> |
| 760. Wild Horse. | α. <i>E. Caballus ferus.</i> |
| 761. Domestic Horse. | β. <i>E. Caballus domesticus.</i> |
| 762. Dshikketai. | 2. <i>Equus Hemionus.</i> |
| Afs. | 3. <i>Equus Asinus.</i> |
| 763. Onager. | α. <i>E. Asinus ferus.</i> |
| 764. Domestic Afs. | β. <i>E. Asinus domesticus.</i> |
| 765. Mule. | γ. <i>E. Asinus Mulus.</i> |
| 766. Bardeau. | δ. <i>E. Asinus Hinnus.</i> |
| 767. Zebra. | 4. <i>Equus Zebra.</i> |
| 768. Hybrid Zebra. | β. <i>E. Zebra hybridus.</i> |
| 769. Quacha. | 5. <i>Equus Quagga.</i> |
| 770. Chilese Horse. | 6. <i>Equus bifulcus.</i> |

HIPPOPOTAMUS.

xlii

HIPPOPOTAMUS.

- | | |
|-------------------------------|-----------------------------------|
| 771. Amphibious Hippopotamus. | 1. <i>Hippopotamus amphibius.</i> |
|-------------------------------|-----------------------------------|

TAPIR.

xliii

TAPIR.

- | | |
|----------------------|-----------------------------|
| 772. American Tapir. | 1. <i>Tapir Americanus.</i> |
|----------------------|-----------------------------|

HOG.

xliv

SUS.

- | | |
|-------------------------|---|
| Common Hog. | 1. <i>Sus Scrofa.</i> |
| 773. Wild Hog. | α. <i>S. Scrofa ferus.</i> |
| 774. Domestic Hog. | β. <i>S. Scrofa domesticus.</i> |
| 775. Single-hoofed Hog. | γ. <i>S. Scrofa domesticus unifulcus.</i> |
| 776. Chinese Hog. | δ. <i>S. Scrofa domesticus sinensis.</i> |
| 777. Guinea Hog. | 2. <i>Sus Porcus.</i> |
| 778. Siam Hog. | β. <i>S. Porcus siamensis.</i> |
| 779. Pecary. | 3. <i>Sus Tajassu.</i> |
| 780. Lesser Pecary. | β. <i>S. Tajassu minor.</i> |
| 781. Patira. | γ. <i>S. Tajassu Patira.</i> |
| 782. African Hog. | 4. <i>Sus africanus.</i> |
| 783. Engallo. | 5. <i>Sus aethiopicus.</i> |
| 784. Babyroussa. | 6. <i>Sus Babyroussa.</i> |

C A T A L O G U E, &c.

VII. C E T E.

N A R V A L.

xlvi

M O N O D O N.

785. Horned Narval.

1. *Monodon monoceros.*

W H A L E.

xlvi

B A L E N A.

Common Whale.

1. *Balaena Mysticetus.*

786. Greenland Common Whale.

α . *B. Mysticetus groenlandica.*

787. Iceland Common Whale.

β . *B. Mysticetus islandica.*

788. Larger Common Whale.

γ . *B. Mysticetus major.*

789. Fin Whale.

2. *Balaena Physalis.*

790. Scrag Whale.

3. *Balaena Boops.*

Humped Whale.

4. *Balaena gibbosa.*

791. Single-humped Whale.

α . *B. gibbosa gibbo unico.*

792. Six-humped Whale.

β . *B. gibbosa gibbis sex.*

793. Broad-nosed Whale.

5. *Balaena Musculus.*

794. Beaked Whale.

6. *Balaena rostrata.*

C A C H A L O T.

xlvi

P H Y S E T E R.

795. Lesser Cachalot.

1. *Phyfeter Catodon.*

Blunt-nosed Cachalot.

2. *Phyfeter macrocephalus.*

796. Black Blunt-nosed Cachalot.

α . *Phyfeter macroceph. niger.*

797. White Blunt-nosed Cachalot.

β . *Phyfeter macroceph. albicans.*

798. Grey Blunt-nosed Cachalot.

γ . *Phyfeter macroceph. cinereus.*

Sharp-nosed Cachalot.

3. *Phyfeter microps.*

799. Hook-toothed Sharp-nosed Cachalot.

α . *Phyfeter microps falcidentatus.*

800. Straight-toothed Sharp-nosed Cachalot.

β . *Phyfeter microps rectidentatus.*

801. High-finned Cachalot.

4. *Phyfeter Turfio.*

D O L P H I N.

xlvi

D E L P H I N U S.

802. Porpoise.

1. *Delphinus Phocaena.*

803. White Porpoise.

β . *D. Phocaena albus.*

804. Brown Porpoise.

γ . *D. Phocaena fuscus.*

805. True Dolphin.

2. *Delphinus Delphis.*

806. Grampus.

3. *Delphinus Orca.*

807. Sword Grampus.

β . *D. Orca ensiforsatus.*

808. Beluga.

4. *Delphinus leucas.*

C L A S S I.

M A M M A L I A *.

The rivers with their dry banks, and the retiring mountains, resound with the bleating of flocks, and the frequent lowing of the herds.—VIRGIL.

THE Mammalia are such animals as nourish their young by means of lactiferous teats or paps. In their structure, both external and internal, and in their various organs, they resemble man. They are for the most part quadrupeds, or having four legs and feet; and, along with us, they inhabit the surface of the earth, environed with cruel enemies: The largest in size, though by far the smallest in number, being furnished with fins, inhabit the ocean.

The clothing of quadrupeds is composed of soft, separate, flexible hair, little subject to injury, which is more plentifully bestowed on the inhabitants of cold regions than on those which live in the warmer parts of the earth. This hair coalesces together, on Urchins and Porcupines, to form spines or prickles; on the Manis these are flattened into sharp pointed scales; and they are united into a shelly coat on the Armadillo: The fur is often divided by distinct ridges, as in the Dog and Horse; and those ridges, on the Horse and Hog, are sometimes elongated into a mane. In aquatic quadrupeds the hair is altogether wanting, lest it should absorb the wet; except in such as are sometimes obliged to live on shore. The face of animals is frequently furnished with bristly warts; the

* The term Mammalia, here used, signifies such animals as feed their young by milk derived from proper glands situated on the mother, and furnished with teats or paps. There is no single English word by which this can be translated; Quadrupeds would exclude the Cetaceous order, which, from giving milk, are arranged by Linnæus in this class.—T.

the lips with whiskers; the chin, as in Man, Apes, and Goats, with a beard; and the legs and breast, as in the Horse and Camel, are often provided with callosities.

The fulcra, supporters, or instruments of motion, are intended for more expeditiously escaping from enemies by flight, or for pursuing after prey. Terrestrial animals, of this class, are furnished with four legs and feet; of these the anterior pair, or fore legs, have sometimes a hand divided into fingers, with a distant opposed thumb, as in the Primates and Oppossums: The hinder feet are more united, that they might serve better for supporting the weight of the body; these are either palmated or webbed, having the toes joined together by an interposed membrane, for the purposes of swimming; or fissile, having the toes separated, for running quickly; or supported by heels, as in Man and the Bear, for standing firmly: Besides these, that the toes, during flight, may not be torn in rugged places, they are either fortified with a thick fur on the soles of the feet, as in the common Hare, Arctic Fox, and Sloth; or they are hoofed, having the toes surrounded by horny nails in the manner of a shoe, as in the orders of Pecora and Belluæ; in some of which animals the heel is included in this manner instead of the toes, which are then wanting: The more fierce animals have their feet armed with claws placed on the extremities of their toes, for seizing their prey, tearing their enemies, and digging the ground; in most of these the claws are pointed and crooked; a small number of less ferocious animals have the claws flattened, and of an oval shape, while the rapacious order of Ferae, or beasts of prey, have bent sharp pointed talons: The flying animals of this class either mount into the air by the assistance of palmated fore feet, having the toes much elongated, and connected by an interposed membrane, as in Bats; or they float in the air by means of a membrane stretched out between the fore and hinder legs, as in the flying Macauco and sailing Squirrel: Aquatic animals are destitute of claws and hoofs, having, instead of feet, pectoral fins, which are formed by the shoulder blade, arm, fore arm, wrist, hand, and fingers, all jumbled together, as in the order Cete.

The offensive arms of the animals of this class, besides the claws and hoofs already taken notice of, and the teeth, which will be mentioned afterwards, are chiefly horns of a cartilaginous or boney nature, which are placed on their heads: These are either solid and persistent, as in the Rhinoceros; or solid and annually deciduous, being, while growing, which they do from their outer ends, covered with a hairy skin which falls off when they are full grown, as in Deer; or, as in the Ox, Goats, and Sheep, they are hollow and persistent, covering a central cavernous boney flint, and growing by additions at their bases; with these weapons animals attack, gore, and strike their adversaries.

series. They thus are enabled in various ways to elude or resist the force of enemies, by fighting, biting, tearing, kicking, striking, running, leaping, climbing, and digging; or by swimming, flying, urining, stinking, roaring, and terrifying.

The instruments for mastication of food are the teeth, which are of three kinds: The fore teeth, which are sometimes in the form of compressed wedges, and called incisors; these serve for plucking, gnawing, and cutting the food: The tusks are longer than the other teeth, their form is conical and pointed, and they have no opposites which directly meet them on closing the mouth; their use is for tearing the food: The grinders, or back teeth, are of a broad form for chewing the food; these, in animals which live on vegetables, are obtuse, and in carnivorous animals are furnished with sharp conically pointed protuberances on their upper surfaces. The Ant-eaters and Manis alone, of all the class, have no teeth.

The tails of animals are composed of an elongation and multiplication of the latter vertebrae of the back, and serve for concealing the unclean parts: In a few animals, as in Man, some of the Apes, and a few of the Murine tribe, this is wanting; in some it is short, in which case it is only the length of the thigh, or shorter, as in the Hare, Satyr, Mole, and Urchin; in others it is long, being at least the length of the leg down to the feet, as in Dogs, Mice, and others; it is sometimes naked, as in Mice; or prehensile, that is, capable of lapping round an object and serving the purpose of a fifth hand, as in some species of the Ape, Porcupine, and Opossum; sometimes it is covered with flowing hair, as in the Horse and Ox; sometimes tufted, the extremity being shaped like a brush, as in the Sea Lion and Jerboa; or, lastly, it is shed laterally, both sides being hairy, as in the Squirrel and Ant-eater.

The senses of animals are intended as guardians for protecting them from danger:—The external ears, which are wanting in aquatic animals, are either rounded, or oval, or pointed, or sharp, or divided; and are erect, or pendulous:—The pupils of the eyes are either round, for using during the day; or contracted into a line, which is either transverse or vertical, for nocturnal use; in some there is a *membrana nictitans*, to preserve the eyes from the glare of light without shutting the eye-lids; all have moveable eye-brows; in man and apes both eye-lids are moveable, but in most of the rest the upper eye-lid only is capable of being moved:—The nose is either compressed, flattened, crooked upwards, or bifid; or, it may be shorter than the lips, as in Apes; a little longer, as in most of the order of Ferae; or it is elongated into a proboscis, or flexible cartilaginous trunk, as in the Elephant; the nostrils are either oval or rounded:—The

tongue in most animals is simple; in some fringed with jags at the edges, as in the Dog; beset with papillae on its upper surface, as in the Feline tribe; or long and slender, as in the Manis and Ant-eater; it is sometimes bifid, as in Seals:—The upper lip in most has a furrow in the middle running downward from the nose; in a few, as in the order of Glires, it is bifid, or divided.

An attentive investigation of the genital organs might offend, though from the various structures of the clytoris, nymphae, scrotum, and penis, considerable service might be derived in forming a natural arrangement of animals. For the most part animals of this class use transient venery, when the males fight together for the enjoyment of the females, and the stronger prevail, as best fitted for the procreation of a more lively offspring: The impregnated females bring forth their young alive, and fully formed, the foetus being excluded from the egg within their own bodies; when dropped, they suckle them with milk, from lactiferous glands or mammae, excreted through teats or paps; they defend them while young, taking care of them till the time of another litter, and sometimes even to a more advanced age:—Some animals are polygamous, as Seals, the male preserving to himself, by force, a seraglio of females which he has associated with him:—A very small number, as some Apes, the Macauco, the Bat, and Urchin, pair together; a single male and female entering into a monogamous society, and rearing their young ones by a joint concern.

The mammae, or lactiferous ducts of the female animals of this class, are always in pairs, and in a determinate number for each species; and, except the Horse genus, the males have always the rudiments of these organs, similar in number and arrangement with those of the females of the same species:—These are either pectoral, being placed on the breast, as in the orders Primates and Cete;—or they are abdominal, that is, situated on the belly, as in Oppossums and Seals;—or inguinal, which are placed in the groin, as in the orders Pecora and Belluae;—or both pectoral and abdominal at the same time, as in most animals of the order Glires;—some animals, as the Hog and others, have them arranged longitudinally;—and, lastly, there are generally two teats on the mother for each young one produced in ordinary births.

The uses of the animals of this class to man are various:—The order of Pecora are bred for supplying flesh, milk, cheese, butter, leather, tallow, and for their fleeces;—the Horse, Ox, Camel, and Elephant, are employed for draught and for carrying loads;—several animals of the order of Ferae are used for hunting or destroying other animals that are troublesome or noxious, such as Mice and Serpents:—The rarer animals

mals are preserved, for curiosity and observance of their manners, in vivaria or menageries.

The authors to be consulted respecting this class of animals are Gesner, Aldrovandus, and Johnston, of the last age; and, in the present century, Ray, Brisson, Houttuyn, Buffon, Pennant, Pallas, Schreber, Klein, Cetti, Erxleben, Blumenbach, Camper, and Storr. The science is to be treated of properly by giving a description of each animal in its form, diet, economy, and manners, that from such history the intention of the Creator in forming them may be discovered; examples of such descriptions of the common Dog, Rhein Deer, Guinea Pig, or restless Cavy, common Hog, and domestic Sheep, may be found in the *Amaenitates Academicæ*.

The Ordinal Characters of the Animals of this Class may, in the first place, be chosen from particulars respecting the Teeth;—thus,

M A M M A L I A, having,

1. Toes and claws;	{	The fore teeth are wanting in both jaws;	BRUTA.	2.
		Two incisive fore teeth in both, and no tusks;	GLIRES.	4.
		Four incisive fore teeth in both, and one tusk on each side in each jaw;	PRIMATES.	1.
		Six, two, or ten, conical fore teeth in both jaws, and one tusk on each side in both;	FERÆ.	3.
2. Hoofed feet;	{	Fore teeth in both jaws;	BELLUÆ.	6.
		Fore teeth only in the lower jaw;	PECORA.	5.
3. No feet;		The teeth are various in the different species;	CETE.	7.

CHARACTERS

C H A R A C T E R S

O F T H E

O R D E R S O F M A M M A L I A.

I. PRIMATES.

Their fore teeth are incisive wedges, of which there are four, parallel to each other, in the upper jaw; except in some species of Bats, which have either two only, or none: They have one tusk on each side in both jaws.—The females have two pectoral milk teats.—The two fore feet resemble hands, having fingers, for the most part, furnished with flattened oval nails.—They live mostly on fruits and seeds, a few only using animal food.

II. BRUTA.

These have no fore teeth in either jaw.—Their feet are fortified with strong, blunt, hoof-like nails.—They are of a clumsy make, and are slow in their motions.—They, mostly, live on vegetables, which they only bruise in mastication.

III. FERÆ.

Their fore teeth are conically pointed, and of these most have six in each jaw: They all have tusks, longer than the other teeth: Their grinders are furnished with conical projections. Their feet are divided into toes, which are armed with sharp hooked claws.—They live on animal food, either devouring dead carcases, or preying on other animals.

IV. GLIRES.

Have two incisive fore teeth in each jaw, and no tusks.—Their feet, which are formed for bounding and running, are provided with toes and claws.—They feed on vegetables, gnawing the barks, roots, and other parts of plants.

V. PECORA.

These have several blunt, wedge like, incisive fore teeth in the lower jaw only.—Their feet are armed with cloven hoofs.—They live on vegetables, which they twitch or pluck; and they all ruminate or chew the cud.

They

They have all four stomachs : 1st, The Rumen or Paunch, in which the food is macerated for some time, to be afterwards brought up to the mouth and chewed more fully ; this action is called ruminating : 2d, The Reticulum, Bonnet, or Kinghood, of a cellular texture, receives the food after rumination : 3d, The Omasus, or Manyplies, composed on its inner surface of numerous folds, digests the food : 4th, The Abomasus, Caille, or Red, divided into bundles, gives acescency to the food, to prevent putrefaction.

VI. BELLUÆ.

Have obtusely truncated fore teeth.—Their feet are armed with hoofs.—Their motions are slow and heavy.—They live on vegetable food, from which their digestive organs draw a tincture without dissolution.

VII. CETÆ*.

Instead of feet, the animals of this order are provided with pectoral fins and a horizontally flattened tail fit for swimming.—They have no claws or hair.—The teeth, in some species, are cartilaginous, and boney in others.—Instead of nostrils, they have a fistulous opening on the anterior and upper part of the head.—They live entirely in the sea, feeding on sea-blubbers and fish.

CHARACTERS.

* This order, though nearly allied in manners and form to fishes, is necessarily ranked with the class of Mammalia from similarity in structure.—Their heart has two auricles and two ventricles, which propel warm, red blood :—They have regularly alternate lungs :—Their eye-lids are moveable :—They have open ears, which receive impressions of sound from the motions of the air :—They have seven vertebrae of the neck, lumbar bones, and a coccyx :—They procreate with an intransient penis :—And, lastly, the female suckles her young with milk by means of teats.

C H A R A C T E R S

OF THE

G E N E R A O F M A M M A L I A.

I. PRIMATES.

1. MAN. 1. *HOMO*. 1. Walks erect. The female menstruates, and has a hymen.
 2. Ape. 2. *Simia*. 2. Have tusks, distant from the other teeth.

* Apes.	<i>Simiae</i> .	No tails.
** Baboons.	<i>Papiones</i> .	Short tails.
*** Monkeys.	<i>Cercopitbeci</i> .	Long, not prehensile, tails, cheek-pouches, and naked buttocks.
**** Sapajous.	<i>Sapaji</i> .	Long prehensile tails, no cheek-pouches, the buttocks clothed.
***** Sagoins.	<i>Sagoini</i> .	Long, not prehensile, tails, no cheek-pouches, the buttocks clothed.

3. Macauco. 3. *Lemur*. 3. Have six fore teeth in the lower jaw.
 4. Bat. 4. *Vespertilio*. 4. Their fore feet are palmated, for the purposes of flying.

- A. Four fore teeth in each jaw.
 B. Four fore teeth above, six below.
 C. Four fore teeth above, eight below.
 D. Two fore teeth above, six below.
 E. Two fore teeth above, four below.
 F. Two fore teeth above, none below.
 G. No fore teeth above, four below.
 H. No fore teeth in either jaw.
 I. The number and arrangement of the teeth unknown.

II.

Note—The figures preceding the Latin names express the order of the Genera, as arranged by Dr Gmelin; those which follow the Latin names are prefixed in his edition, apparently to mark the order followed by Linnæus in the former edition; such as have no numeral after the Latin names are new Genera adopted by Dr Gmelin. The figures which precede the English names show the order observed in this edition.—T.

II. BRUTA.

- | | | |
|----------------|-----------------------------|--|
| 5. Sloth. | 5. <i>Bradypus</i> . 7. | Have no fore teeth or tusks; the anterior grinders are longer than the rest. The body is hairy. |
| 6. Ant-eater. | 6. <i>Myrmecophaga</i> . 8. | Have no teeth. The body is hairy. |
| 7. Manis. | 7. <i>Manis</i> . 9. | Have no teeth. The body is covered with scales. |
| 8. Armadillo. | 8. <i>Dasyfus</i> . 10. | Have grinders, but no tusks or fore teeth. The body is covered with a crustaceous shell. |
| 9. Rhinoceros. | 9. <i>Rhinoceros</i> 36. | Has a horn on the middle of the fore-head. |
| 10. Sukotyro. | <i>Sucotyro</i> . | Has horns on each side below the eyes. |
| 11. Elephant | 10. <i>Elephas</i> . 5. | Has tusks and grinders, but no fore teeth. The snout is elongated into a flexible trunk. |
| 12. Walrus. | 11. <i>Trichechus</i> . 6. | Has tusks in the upper jaw; rough boney excrescences for grinders. Hind legs and feet stretched backwards. |

III. FERÆ.

- | | | |
|-----------|------------------------|---|
| 13. Seal. | 12. <i>Phoca</i> . 11. | Six fore teeth above, four below. |
| 14. Dog. | 13. <i>Canis</i> . 12. | Six fore teeth in each jaw; the intermediate ones, above, lobed. |
| 15. Cat. | 14. <i>Felis</i> . 13. | Six fore teeth in each jaw; the lower ones equal. The tongue prickly. |

* With long tails, and plain ears.

** With short tails, and pencilled ears. Lynxes.

- | | | |
|--------------|--------------------------|--|
| 16. Fitchet. | 15. <i>Viverra</i> . 14. | Six fore teeth in each jaw; the intermediate ones, below, shorter than the rest. |
| 17. Weasel. | 16. <i>Mustela</i> . 15. | Six fore teeth in each jaw; the lower ones crowded together; two, alternate, standing within the rest. |

* Otters. *Lutrae*.

The feet webbed.

** Weasels. *Mustelae*.

The feet divided.

- | | | |
|-----------|------------------------|---|
| 18. Bear. | 17. <i>Ursus</i> . 16. | Six fore teeth in each jaw; the upper ones hollowed. The penis contains a crooked bone. |
|-----------|------------------------|---|

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|--------------|----------------------------|--|
| 19. Opossum. | 18. <i>Didelphis</i> . 17. | Ten fore teeth above, eight below. |
| 20. Mole. | 19. <i>Talpa</i> . 18. | Six fore teeth above, eight below. |
| 21. Shrew. | 20. <i>Sorex</i> . 19. | Two fore teeth above, four below. |
| 22. Urchin. | 21. <i>Erinaceus</i> . 20. | Two fore teeth in each jaw. The body is beset with prickles. |

IV. GLIRES.

- | | | |
|------------------------|--------------------------|---|
| 23. Porcupine. | 22. <i>Hystrix</i> . 21. | The body is covered with long spines. |
| 24. Cavy. | 23. <i>Cavia</i> . | The fore teeth are wedge-like; four grinders on each side. No collar bones. |
| 25. Beaver. | 24. <i>Castor</i> . 23. | The upper fore teeth wedge-like; four grinders on each side. Has collar bones. |
| 26. Murine quadrupeds. | 25. <i>Mus</i> . 24. | The upper fore teeth wedge-like; three grinders on each side. Has collar bones. |
| * Beaver-rats. | <i>Myocastores</i> . | The tail is flattened at the end. |
| ** Rats and Mice. | <i>Mures</i> . | The tail is round. |
| | † <i>Myofuri</i> . | With naked tails. |
| | †† <i>Cunicularii</i> . | With hairy tails. |
| *** Hamsters. | <i>Criceti</i> . | Having cheek-pouches. |
| **** Mole-rats. | <i>Myotalpae</i> . | Have no external ears; small eyes; and a very short tail, or none. |
| 27. Marmot. | 26. <i>Arctomys</i> . | Have two wedge-like fore teeth in each jaw; five grinders above, and four below, on each side. Have collar bones. |
| 28. Squirrel. | 27. <i>Sciurus</i> . 25. | Have two wedge-like fore teeth above and two, sharp pointed, below; five grinders above, and four below, on each side. Have collar bones: Hair on the tail shed side ways: Long whiskers. |
| * Climbing Squirrels. | <i>S. Scandentes</i> . | |
| ** Flying Squirrels. | <i>S. Volitantes</i> . | |
| 29. Dormouse. | 28. <i>Myoxus</i> . 26. | Have long whiskers; and a round tail, thick at the extremity. |

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|--------------|------------------------|--|
| 30. Jerboa. | 29. <i>Dypus</i> . | Have very short fore, and very long hind legs. |
| 31. Hare. | 30. <i>Lepus</i> . 22. | The upper fore teeth double. |
| 32. Ashkoko. | 31. <i>Hyrax</i> . | Have broad upper fore teeth. No tail. |

V. PECORA.

- | | | |
|-----------------|--------------------------|--|
| 33. Camel. | 32. <i>Camelus</i> . 27. | Hornless. Has several tusks on each side of each jaw. |
| 34. Musk. | 33. <i>Moschus</i> . 28. | Hornless. Solitary tusks; those in the upper jaw project from the mouth. |
| 35. Deer. | 34. <i>Cervus</i> . 29. | Has solid, branchy, deciduous horns. No tusks in either jaw. |
| 36. Camelopard. | 35. <i>Giraffa</i> . | Very short horns. The fore legs are much longer than those behind. |
| 37. Antilope. | 36. <i>Antilope</i> . | Has solid, simple, persistent horns. No tusks in either jaw. |
| 38. Goat. | 37. <i>Capra</i> . 30. | Has hollow, erect horns. No tusks. |
| 39. Sheep. | 38. <i>Ovis</i> . 31. | Has hollow reclined horns. No tusks. |
| 40. Bull. | 39. <i>Bos</i> . 32. | Has hollow extended horns. No tusks. |

VI. BELLUÆ.

- | | | |
|-------------------|-------------------------------|---|
| 41. Horse. | 40. <i>Equus</i> . 33. | Has six fore teeth in each jaw. |
| 42. Hippopotamus. | 41. <i>Hippopotamus</i> . 34. | Has four fore teeth in each jaw. |
| 43. Tapir. | 42. <i>Tapir</i> . | Has ten fore teeth in each jaw. |
| 44. Hog. | 43. <i>Sus</i> . 35. | Has four fore teeth in the upper, and six in the lower jaw. |

VII. CETÆ.

- | | | |
|---------------|----------------------------|--|
| 45. Narval. | 44. <i>Monodon</i> . 37. | Has two extended boney teeth in the upper jaw. |
| 46. Whale. | 45. <i>Balaena</i> . 38. | Has horny teeth in the upper jaw. |
| 47. Cachalot. | 46. <i>Phyfeter</i> . 39. | Has boney teeth in the lower jaw only. |
| 48. Dolphin. | 47. <i>Delphinus</i> . 40. | Has boney teeth in both jaws. |

I. PRIMATES*.

Their fore teeth are wedge-like, intended for cutting; those in the upper jaw are parallel, and four in number.

They have two paps situated on the breast.

1. MAN.—*HOMO*.

Know thyself †.

Sapient Man.—1.—*H. Sapiens*.

Man seems a native of the countries within the Tropics, and dates were probably his original food. He has, however, become accustomed to the less genial climes without the Torrid Zone, and now supports his existence by means of agriculture, adding animal food to that intended him by Nature.

This is the only species; he is endowed with wisdom far superior to, or rather in exclusion of, all other animals. He varies from climate, education, and habits. Linæus enumerates the following varieties.

Wild Men.—*α*.—*H. Feri*.

Walk on all fours, are dumb, and covered with hair ‡.

1. A youth found in Lithuania, in 1761, resembling a bear,
2. A youth found in Hesse, in 1544, resembling a wolf.

3.

* The name of this order may be translated *Chiefs*, as being the principal animals, because it contains Man, and those animals which resemble him, especially in the circumstances of the teeth and mammae, or teats.—T.

† This noted saying of Solon is the first step towards the attainment of true wisdom, and was formerly written, in letters of gold, on the temple of Diana.

‡ These instances of wild men, and their similitudes, are partly to be attributed to imposture, and in part to exaggeration. Most probably idiots who had strayed from their friends, and who resembled the above animals only in imitating their voices.—T.

3. A youth in Ireland resembling a sheep. *Tulp. Obs. iv. 9.*
4. A youth in Bamberg resembling an ox. *Camerarius.*
5. A wild youth found, in 1724, in Hanover.
6. Wild boys found, in 1719, in the Pyrenees.
7. A wild girl found, in 1717, in Overysel.
8. A wild girl found, in 1731, in Champagne.
9. A wild lad found near Leyden. *Boerhaave.*

American.—β.—*H. Americani.*

Of copper coloured complexion, choleric constitution, and remarkably erect.

Their hair is black, lank, and coarse; their nostrils are wide; their features harsh, and the chin is scantily supplied with beard. Are obstinate in their tempers, free, and satisfied with their condition; and are regulated in all their proceedings by traditional customs.—Paint their skin with red streaks.

Europeans.—γ.—*H. Europaei.*

Of fair complexion, sanguine temperament, and brawny form.

The hair is flowing, and of various shades of brown; the eyes are mostly blue.—Of gentle manners, acute in judgment, of quick invention, and governed by fixed laws.—Dress in close vestments.

Asiatic.—δ.—*H. Asiatici.*

Of footy complexion, melancholic temperament, and rigid fibre.

The hair is strong, black, and lank; the eyes dark brown.—Of grave, haughty, and covetous manners. Governed by opinions.—Dress in loose garments.

African.—ε.—*H. Afrî.*

Of black complexion, phlegmatic temperament, and relaxed fibre.

The hair is black and frizly; the skin soft and silky; the nose is flat; the lips thick; and the female has a natural apron *, and long lax breasts.—Of crafty, indolent, and careless dispositions, and are governed in their actions by caprice.—Anoint the skin with grease.

Monsters.—ζ.—*H. Monstrosi.*

Of these there are several varieties; the first and second of which, in the following list, are occasioned by peculiarity of climate, while the rest are produced by artificial management.

* This circumstance is rather doubtful.

1. *Alpini*. The inhabitants of the northern mountains; these are small in stature, active, and timid in their dispositions.
2. *Patagonici*. The Patagonians of South America; of vast size, and indolent in their manners.
3. *Monorchides*. The Hottentots; having one testicle extirpated.
4. *Imberbes*. Most of the American nations; who eradicate their beards, and the hair from every part of the body except the scalp.
5. *Macrocephali*. The Chinese; who have their heads artificially forced into a conical form.
6. *Plagioccephali*. The Canadian Indians; who have the fore part of their heads flattened, when young, by compression.

The following arrangement, of the varieties in the human species, is offered by Dr Gmelin as more convenient than that of Linnæus.

1. White.—a.—*H. Albus*.

Formed by the rules of symmetrical elegance and beauty; or, at least, what we consider as such.—This division includes almost all the inhabitants of Europe; those of Asia on this side of the Oby, the Caspian, Mount Imaus, and the Ganges; likewise the natives of the north of Africa, of Greenland, and the Esquimeaux.

Brown.—b.—*H. Badius*.

Of a yellowish brown colour; has scanty hairs, flat features, and small eyes.—This variety takes in the whole inhabitants of Asia not included in the preceding division.

Black.—c.—*H. Niger*.

Of black complexion; has frizly hair, a flat nose, and thick lips.—The whole inhabitants of Africa, excepting those of its more northern parts.

Copper coloured.—d.—*H. Cupreus*.

The complexion of the skin resembles the colour of copper not burnished. The whole inhabitants of America, except the Greenlanders and Esquimeaux.

Tawny.—e.—*H. Fuscus*.

Chiefly of a dark blackish brown colour, having a broad nose, and harsh coarse straight hair.—The inhabitants of the southern islands; and of most of the Indian islands.

DESCRIPTION OF MAN.

The body, which seldom reaches six feet in height, is erect, and almost naked, having only some scattered distant hairs, except in some small spots of the body, to be afterwards noticed, and when first born is entirely naked. The head is shaped like an egg; the scalp being long, and covered with hair; the forehead broad; the top of the head flat; and the hind head protuberant. The face is naked having the brow, or forehead, flattened and quadrangular; the temples are compressed, with peaked angles pointing upwards and backwards towards the hairy scalp. The eye brows are prominent, and covered with hairs which, shedding outwards, cover each other like tiles; and, between the inner extremities of the two eye brows, there is a smooth, shallow furrow, or depression, in a line with the nose. The upper eye lid is moveable, but the lower one hardly moves, and both are planted, at their edges, with a row of stiff recurved hairs, named *eye-lashes*. The eye-balls are round, having no suspending muscle as in those of most quadrupeds; the pupil, or opening of the sight, is circular; and the eye has no *membrana nictitans* *. The upper parts of the cheeks are prominent, softish, and coloured with a red blush; their outer parts flattened; the lower parts are hollowed, lax, and expansile. The nose is prominent and compressed at the sides; its extremity or point is higher than the rest, and blunt; the nostrils are oval, open downwards, with thickened edges, and are hairy on their insides. The upper lip is almost perpendicular, and is furrowed on the middle, from the division between the nostrils to the edge of the lip; the under lip is erect, thicker and more prominent than that above; both have a smooth red protuberance, surrounding the mouth, at their edges. The chin is prominent, blunt, and gibbous. In males, the face, all round the mouth, is covered with hair, called the beard, which first appears, about puberty, in patches on the chin. The teeth in both jaws may be distinguished into three orders; the *fore teeth* are erect, parallel, and wedge like, of the kind named *incisors*, or *cutting teeth*; they stand close to each other, and are more equal and rounder than in other animals; the *tusks*, called, in man, *eye teeth* and *corner teeth*, of which there is only one on each side of the fore teeth in each jaw, are a little longer than the fore teeth, but much less so than in other animals, and they are placed close to the other teeth; the *grinders*, of which there are five on each side in both jaws, are blunt, and divided on their upper surface into pointed eminences; but these are not so remarkable as in other animals. The ears are placed on the sides of the head, are of an oblong rounded figure, with a semilunar bend on their

* This membrane is a half transparent screen, serving the purpose of eye-lids in some degree; sometimes along with eye lids, and sometimes without them. It will be afterwards described.—T.

their anterior edges ; they lie flat to the head, are naked, arched at the margin on their upper and posterior edges, and are thicker and soft at the under extremities.

The trunk of the body consists of the neck, breast, back, and belly. The neck is roundish, and shorter than the head ; its vertebrae, or chine bones, are not, as in most animals, connected by a suspensory ligament ; the nape is hollowed ; the throat, immediately below the chin, is hollowed at its upper part, and protuberant in the middle a little lower down. The breast is somewhat flattened both before and behind ; on the fore part there is a cavity or depression where it joins with the neck ; the arm-pits are hollow and hairy ; the pit of the stomach is flat : On the breast are two distant, round, protuberant mammae, or dugs, each having a cylindrical obtuse wrinkly projecting nipple, which is surrounded by a darker coloured circle called the *areola*. The back is flat, having protuberances on each side at the shoulder blades, with a furrow or depression between them. The abdomen or belly is large and protuberant, with a hollow at the navel ; the epigastric region, or situation of the stomach, is flat ; the hypogastric regions, or sides of the belly, are protuberant ; the groins flattish and hollowed. The pubis is hairy ; the pelvis, or basin, is wider above, and grows narrower below ; the male parts are external and loose ; the penis cylindrical ; the scrotum roundish, lax, and wrinkled, being divided in the middle by a longitudinal ridge or smooth line, which extends along the whole perinaeum : The female parts are compressed and protuberant, having labia, nymphae, clitoris, and hymen ; and, in adults, secreting the catamenia. There is no external tail.

The limbs consist of arms and hands, instead of fore legs, and of thighs, legs, and feet. The arms are placed at a distance from each other ; they are round, and about a foot in length, from the joint of the shoulder to the elbow ; the fore-arm, or cubit, contains two bones, and is obtusely prominent ; the *ulna*, which forms the principal thickness of the member, is round, and somewhat flattened on the inside. The hands are broad, flat, and rounded ; convex on the out side, or back of the hand, and concave on the inside, or palm. Each hand has five fingers, one of which, named the *thumb*, is shorter and thicker than the rest, and is placed at some distance from them ; the others are near each other, and placed parallel, the outer or *little finger* being the smallest ; the second, named *index*, or *fore finger*, and the fourth, called the *ring finger*, are next in length and in size ; and the third, or *middle finger*, is the longest ; the point of this last, when the arm and hand hang down, reaches to the middle of the thigh. The nails are rounded and oval, being flatly arched, or convex upwards, and each has a semilunar whitish mark at the root or lower extremity.

The lower limbs are placed close together, having brawny muscular haunches, and swelling fleshy hips; the knees are obtuse, bend forwards, and have hollow hams behind. The legs, which are nearly of the same length with the thighs, are of a muscular make behind, where they swell out into what is called the *calf*; they are lean, and free of flesh on the shins, or fore parts, and taper downwards to the ancles, which have hard hemispherical projections on each side, named the *ankle bones*, or *malleolae*. The heel is thick, prominent, and gibbous, being longer and broader than in other animals, for giving a firm support to the body; it joins immediately with the sole of the foot. The feet are oblong, convex above, and flattened on the soles, which have a transverse hollow about the middle. Each foot has five toes, somewhat bent downwards, and gibbous, or swelled, underneath at their extremities; they are all placed close together, the inner, or great toe, being thicker, and somewhat shorter, than the rest; the second and third are nearly of equal length; and the fourth and fifth are shorter than the others, the last mentioned, or little toe, being the shortest and smallest. The toe nails resemble those on the fingers, which are already described.

Thus man differs from the other animals in his erect posture and naked skin, having a hairy scalp, being furnished with hair on the eye-brows and eye-lashes, and having, when arrived at puberty, the pubis, breast, arm-pits, and the chin of the males, covered with hair. His brain is larger than that of any other animal, even the most enormous; he is provided with an *uvula*, and has organs of speech. His face is placed in the same parallel line with his body; he has a projecting compressed nose, and a prominent chin. His feet, in walking, rest on the heel. He has no tail; and, lastly, the species is distinguished, from other animals, by some peculiarities of the female constitution, which have been already mentioned.

OBSERVATIONS ON MAN*.

§ 1. PHYSIOLOGICALLY.—*Tecum habita!*

Man is a frail machine, chiefly composed of nerves and fibres interwoven with each other. His most perfect state is during youth; and he is endowed with faculties more numerous

* In the original these are contained in a note, but are here thrown into the text for greater convenience.—T.

numerous, and in higher perfection, than those of all other animals. “Man, intended for exercising dominion over the whole animal creation, is sent, by Nature, into the world naked, forlorn, and bewailing his lot; he is then unable to use his hands or feet, and is incapable of acquiring any kind of knowledge without instruction; he can neither speak, nor walk, nor eat, nor do any action whatever by natural instinct.” *Pliny*.—“We may judge what kind of life is allotted to us by Nature, since it is ordained, as an omen, that we should come weeping into the world.” *Seneca*.—“It is humiliating to the pride of man, to consider the pitiable origin of this most arrogant of all the animals.” *Pliny*.

§ 2. DIETETICALLY.—*Cura valetudinem!*

Bodily health and tranquillity of mind are more to be desired than all the riches, pomp, or glory, of a Ctesias, a Solomon, or an Alexander. Health is to be preserved by moderation, it is destroyed by abstinence, injured by variety of delicacies, weakened by unusual things, and strengthened by the use of proper and accustomed fare. Man, learned in the pernicious art of cookery, is fond of many dishes, rendered palatable by the injurious effects of fire, and by the baneful addition of wine. “Hunger is satisfied with a small quantity of food, luxury demands overabundance. Imagination requires vast supplies, while Nature is contented with a moderate quantity of ordinary food, and is burthened by superfluity.” *Seneca*.—According as thou livest, so shall thy life be enjoyed.

§ 3. PATHOLOGICALLY.—*Memento mori!*

The life of man resembles a bubble ready to burst; his fate is suspended by a hair, and is dependent on the uncertain lapse of time. “The earth contains nothing more frail than man.” *Homer*.—“Nothing is weaker than human life: To what dangers, and to how many diseases, is it not exposed? Hence the whole period of a man’s life is but a span: Half of it is necessarily spent in a state resembling death; without including the years of infancy, wherein there is no judgment, or the period of old age, fertile in sufferings, during which the senses are blunted, the limbs become stiff, and the faculties of sight and hearing, the powers of walking, and the teeth, the instruments of nourishment, fail before the rest of the body. *Pliny*.—“Thus a considerable part of death is suffered during life; and death possesses all that belonged to the times which are past. Finally, Nature will speedily recal and destroy all the beings.”

“ ings which thou see'st, and all that thy imagination can suppose to exist hereafter ;
 “ for death calls equally upon all, whether they be good, or whether they be evil.”
Seneca, ii. 59.

§ 4. NATURALLY.—*Innocuo vivite, Numen adest!*

Man, the Prince of animated beings, who is a miracle of Nature, and for whom all things on this earth were created, is a mimic animal, weeping, laughing, singing, speaking ; tractable, judicious, inquisitive, and most wise ; he is weak and naked, unprovided with natural weapons, exposed to all the injuries of fortune, needful of assistance from others, of an anxious mind, solicitous of protection, continually complaining, changeable in temper, obstinate in hope, and slow in the acquisition of wisdom. He despises the time which is past, abuses that which is present, and sets his affections on the uncertain future ; thus, continually neglecting winged time, which, though infinitely precious, can never be recalled : For thus the best and readiest time, in every age, flies on with miserable mortals ; some it summons to attend their daily and burthensome labours ; some it confines to luxurious inaction, pampered, even to suffocation, with superfluities ; some it solicits in the ever restless paths of ambition ; some it renders anxious for the acquisition of wealth, and distresses by the possession of the thing desired ; some it condemns to solitude, and others to have their doors continually crowded with visitors ; here one bewails the conduct of his children, there one grieves their loss : Tears will sooner fail us than their causes, which only oblivion can remove. “ On every hand our evils overbalance our advantages ; we are surrounded with dangers ; we rush forwards into untried situations ; we are enraged without having received provocation ; like wild beasts, we destroy those we do not hate ; we wish for favourable gales, which lead us only to destruction ; the earth yawns wide, ready for our death.” *Seneca*.—“ Other animals unite together against enemies of a kind different from their own, while man suffers most injuries from his own species.” *Pliny*.

§ 5. POLITICALLY.—*Esto antiqua virtute et fide!*

Man, instead of following that which is right, is subjected to the guidance of manifest error ; this envelops all his faculties, under the thick veil of custom, as soon as he is born ; according to its dictates he is fed, educated, brought up, and directed, in all things ; and by its arbitrary rules his honesty, fortitude, wisdom, morality, and religion, are judged of ; thus, governed by opinion, he lives conformably to custom, in-

stead of being guided by reason. Though sent into the world a perishable being, for all are evidently born to suffer, instead of endeavouring to secure those things which are most advantageous and truly beneficial, he, infatuated by the smiles of fortune, anxiously collects her gawdy trifles for future enjoyment, and neglects her real benefits; he is driven to madness by envious snarlers; he persecutes with hatred the truly religious for differing from himself in speculative opinions; he excites numberless broils, not that he may do good, but for a purpose that even himself is ignorant of. He wastes his precious and irrecoverable time in trifles; he thinks lightly of immortal and eternal concerns, while regulating the succession of his posterity; and, perpetually entering on new projects, forgetful of his real condition, he builds palaces instead of preparing his grave; till at length, in the midst of his schemes, Death seizes him, and then, first opening his eyes, he perceives, O Man! that all is delusion. “Thus we live as if immortal, and first learn in death that we have to die.” *Seneca.*

§ 6. MORALLY.—*Benefac et lactare!*

Man is composed of an animated medullary substance, which prompts him to that which is right, and of a bodily frame liable to impressions, which instigates him to the enjoyment of pleasure. In his natural state he is foolish, wanton, an inconsiderate follower of example, ambitious, profuse, dissatisfied, cunning, peevish, invidious, malicious, and covetous; by the influence of just morals he is transformed to be attentive, chaste, considerate, modest, temperate, quiet, sincere, mild, beneficent, grateful, and contented. “Sorrow, luxury, ambition, avarice, the desire of life, and anxiety for the future, are common to all animals.” *Pliny.*

§ 7. THEOLOGICALLY.—*Memento Creatoris tui!*

Man, the ultimate purpose of creation, and masterpiece of the works of Omnipotence, was placed on earth that he might contemplate its perfections; he was endowed with sapient reason, and made capable of forming conclusions from the impressions of his senses, that, from a consideration of created objects, he might know their Creator as the Almighty, the Infinite, the Omniscient, the Eternal God: That we may live morally under his governing care, it is requisite that we have a thorough conviction of its existence, and must have it ever in remembrance.—Other revealed matters on this subject are left to be explained by the Theologians.

“There

“ There are two things which lead to a knowledge of God; Creation and Revelation.” *Augustine*.—“ God, therefore, may be found out by the light of Nature, but is only to be known by the assistance of doctrine.” *Tertullian*.—“ Man alone has the inestimable privilege of contemplating the perfections of God, who is the author both of Nature and of Revelation.” *Ibid*.—“ Learn that God has both ordered you to exist, and that you should study to act that part properly which is allotted for you in life.” *Perf. Sat. iii. 71*.

II. A P E.—2. *S I M I A*. 2.

Has four close set fore-teeth in each jaw; single tusks on each side in both jaws, which are longer than, and somewhat remote from, the other teeth; and obtuse grinders. The feet are formed like hands.

This genus resembles man in the structure of the paps, clitoris, nymphae, uterus, uvula, eye-lashes, hands, feet, fingers, toes, and nails. It is really wonderful that, with so much external resemblance to man, especially in some of the species, this stupid race of animals should differ so widely in the total want of reason *. Between the Tropics, in India, there are numerous shady groves of trees, the branches of which, hanging downwards to the earth, again take root to form columnar trunks, whose thick and lofty tops, interlacing each other, overshadow the earth, and protect it from being burnt up by the torrid influence of an ever vertical sun; under covert of this umbrageous thicket, along with parrots and other birds, the race of apes chiefly inhabits.

This is a suspicious race of animals, and is endowed with a very retentive memory: They are forward, fond of imitation, and full of gesticulations; are with difficulty brought to learn any thing; use threatening gestures, chatter with their teeth, and seem to laugh: They mostly macerate their food in their cheeks for some time before they chew and swallow it; are fond of hunting after fleas in their own fur and that of their neighbours; have a very delicate sense of feeling, use their arms in swimming, and void their faeces in a very filthy manner, when terrified. In some species the females have a distinct urinary passage. They are libidinous when pregnant: They live mostly on vegetable food: They all suckle their young; but very few of the species are hitherto either fully known or accurately described.

Apes, and parrots, the apes among birds, are more numerous in their species than any other animals. They are mostly confined to the Torrid Zone, a single species only being found beyond that line, in Barbary: They are lively, agile, full of frolic, chatter, and grimace; and, from the structure of their members, have many actions in common with mankind, but no superiority over most other brutes in sagacity. Most of them are fierce and untameable; yet some are of a milder nature, and shew a degree of attachment to those who are kind to them; but, in general, they are endowed with mischievous propensities. They are filthy, obscene, lascivious, and thieving; feed on fruits, leaves, grain, and insects; inhabit the woods, and live in trees; are mostly gregarious, and go together in vast companies; but the different species always keep apart, and in separate quarters, never mixing with each other. They leap with vast agility from tree to tree, even when loaded with their young, which cling to them. They are the prey of leopards, and other species of the feline tribe, and of serpents, which pursue them to the summits of the trees, and swallow them entire.

The principal marks by which the species of this genus are distinguishable from each other, are derived, 1st, from the tail, which is either long, short, or altogether wanting, or is straight, or prehensile; 2dly, from the buttocks, which are naked, and furnished with callosities, or are covered with hair; 3dly, from the nails, which are flat and rounded, like those of man, or sharp pointed,

like

* *Simia quam similis turpissima bestia nobis.*—Ennius.



N° 4.

N° 8.

N° 5.



N° 13.

N° 61.

N° $\frac{66}{78}$.

like the claws of beasts in general; 4thly, from the presence or absence of a beard on the chin; and, 5thly, from the cheeks being provided with, or wanting, pouches in their under parts *. For greater convenience, the species of this genus, which are very numerous, are arranged under five subordinate divisions, considered as distinct genera by some authors, and not without reason: Three of these subdivisions were adopted by Linnæus; but Dr Gmelin, following Buffon, has added other two, taken from the third division of his great precursor.

* APES.—SIMIÆ.

Have no tails. The visage is flat; the teeth, hands, fingers, feet, toes, and nails, resemble those of man; and they walk naturally erect. This division includes the simiæ or apes, properly so called, of the ancients, which are not found in America.

1. Chimpanzee.—1. *Simia troglodytes*. 34†.

Has no tail. The head is conical; the whole body is of a robust brawny make; the back and shoulders are covered with hair, and the rest of the body is naked. Blumenbach, comp. hist. nat. 1. 65. et de gen. hum. var. nativ. 37.

Satyrus indicus. Tulp. obs. med. 284. tab. xiiii.—Chimpanzee. Scotin, Nov. act. Er. Lips. m. Sept. 1739. tab. 5. p. 564.—Great ape. Penn. H. of Q. n. 72.

Inhabits Angola, and was first brought to Europe in the year 1738, being exhibited as a show in London in the month of August that year. What is said by Linnæus of the *homo troglodytes* ‡ seems partly of fabulous origin, partly to refer to some monstrous or morbid individual of the human race, and partly to belong to the above species of ape. To the first source we must evidently ascribe what is reported of his faculties of speech, of thought, and of reason; the second supposition is clear from the synonymous name *kakurlacko*, which he has cited; and to the third the remainder of the description, and what is extracted from Bontius, may be referred. What our author has said of Lucifer, or men with tails, may likewise be considered as fabulous.

2.

* There is great difficulty in arranging the several divisions, species, and varieties, of this genus; indeed, there are strong grounds for suspecting, that, as in dogs, the several species intermix with each other, and produce an almost endless variety, by which great confusion in the opinions and descriptions of naturalists have been occasioned, and which would require a much more minute attention to extricate than can ever be given to so useless a race of animals. Many apparent varieties have likewise been formed by the arts of show-men, to impose on the ignorance and credulity of the curious, which has added to the difficulties of the natural historian.—T.

† The various numerals used in this edition to the species and varieties are to be understood thus: The marginal number on the left hand shews the running number of the species in each class of this edition; the number preceding the English name is the running number of the species in the genus; that preceding the Latin name shews the arrangement of the species in Gmelin's edition; and that which follows the Latin name is the number prefixed by Gmelin from the last Linnæan edition, or referring to that arrangement.—T.

‡ This paragraph, which is a note in the edition by Dr Gmelin, refers to the last Linnæan edition of the *Systema Naturæ*.—T.

2

2. Orang-outang.—2. *Simia Satyrus*. 1.

Has no tail. Is of a rusty brown colour; the hair on the fore-arms is reversed, or stands upwards; and the buttocks are covered with hair. Amoen. acad. vi. 68. tab. lxxvi. f. 4.

Homo sylvestris, or wild man of the woods. Edwards, av. v. 6. tab. 213.—Orang-utang. Camper, kort beright, &c. Amsterdam 1788. p. 8.

Inhabits the island of Borneo.—Is about two feet high, and walks mostly erect. The body and limbs are universally covered with brown hair, about an inch long, which is thinly interspersed with reddish hairs; the hair on the fore-arms, towards the wrists, is reversed, or lies with its points turned towards the elbow; the buttocks are covered with hair: The head is round, having a naked forehead; the margin of the mouth is hairy; the eye-lashes are black, the upper being longer and thicker than those below; and a range of transversely placed hairs occupies the place of eye-brows: The nose is very short, and is covered with down: The palms of the hands are smooth, and the thumb is shorter than the palm; the feet resemble those of man, except that the great toes are considerably shorter than the others, which are very long.

Much as this species resembles mankind, even possessing the os hyoides, it must still be referred to the genus of Ape, with which it agrees in wanting the flat round nail on the great toes, and in the structure of the larynx; besides these circumstances, it is evident, from the direction of the muscles, and from the whole figure of the skeleton, that this animal is not designed by nature for an erect posture.

3

β. Pongo.—*Simia Satyrus Pongo*.

Has no tail, no cheek pouches, and no callosities on the buttocks; walks always erect, and is between five and six feet high. Sm. Buff. viii. 77.

Homo sylvestris, f. Orang-outang. Bontius, Jav. 84. tab. 84.

Inhabits the island of Java, and the interior parts of Guinea.—Has no pouches within his cheeks, no tail, and no callosities on the buttocks; which last are plump and fleshy. All the teeth are similar to those of man. The face is flat, naked, and tawny; the ears, hands, feet, breast, and belly, are likewise naked; the hair of the head descends on both temples in the form of tresses; the hair on the back and loins is in small quantities. It is five or six feet high, and walks always erect on the two hind feet. It has not been ascertained whether the females of this species, or variety, are subject to periodical discharges, but analogy renders this almost unquestionable. This animal is, by Dr Gmelin, considered only as a variety of the orang-outang.

4

γ. Jocko.—*Simia Satyrus Jocko*.

Resembles the former, but is only two feet and a half in height. Sm. Buff. viii. 86. tab. cclii.

Cyolock. De Visme, Phil. Transf. xiv. 73. tab. 3.—Homo sylvestris, Orang-outang. Tyfon, anat. of a pigmy. 108. fig. 1. and 2.

The one seen by the Count de Buffon was about two feet and a half high; and, by the information of his proprietor, was only about two years old. He walked always erect; his air was melancholy, his gait grave, his movements measured, and his dispositions gentle, without any of the mischievous tricks, impatience, maliciousness, or extravagance, of other apes, baboons, and monkeys.

He

He was remarkably docile, and imitative of the actions of mankind, requiring only signs and words to make him act, while other apes require to be managed with blows; would present his hand to visitors; sat down at table, unfolded his napkin, wiped his lips, used a spoon or a fork, poured his liquor into a glass, which he made to touch that of the person who drank along with him; would bring a cup and saucer to the tea table, put in sugar, pour out the tea, and allow it to cool before he drank. He eat almost of every thing that was offered, but preferred ripe and dried fruits, and sweet-meats; drank a little wine, but spontaneously left it for milk, tea, or other mild liquors. He was troubled with a teasing cough; lived one summer in Paris, and died in London the following winter. It is probable that this young animal, if possessed of liberty in its native climate, would have acquired, with age, the same height and dimensions which travellers have ascribed to the Pongo, or great Ourang-outang: Of course, till better informed, these two animals must be considered as constituting but one species.

In Mr Pennant's Synopsis of Quadrupeds, the two last animals, and the Chimpanzee, are considered only as one species, of which he gives the following description, under the name of *great ape*. Has a flat face with a deformed resemblance of the human countenance; ears exactly like those of man; the hair on the head longer than on the rest of the body; the body and limbs are covered with reddish shaggy hair, which is longest on the back, and thinnest on the fore-parts; the face and paws are swarthy; the buttocks are covered with hair.

3. Great Gibbon.—3. *Simia Lar*. 35.

Has no tail. The arms are naked, and as long as the body; the buttocks are naked.

Homo lar. Mantiss. pl. ii. p. 521. Miller on var. sub. of nat. hist. tab. xxvii. A. B.—Grand gibbon. Sm. Buff. viii. 113. tab. ccliii.—Long armed ape. Penn. H. of Q. n. 74.—*Simia longimana*. Schreber, i. 66. tab. iii. 1.

Inhabits India, particularly Coromandel, Malacca, Sumatra, and the Molucca islands.—Of a mild and slothful disposition, impatient of cold and rain; is about four feet high, of a black colour with a swarthy face, and approaches nearer to the manners of mankind than even the Orang-outang, being more inclined to the erect posture. It is named *Golok* in India. There are slight callosities on the buttocks. The face is flat, brown, and surrounded with a circle of grey hairs; the canine teeth are proportionally longer than those of man; the ears are naked, black, and round; the eyes are large and sunk; the arms are so enormously long, that, when walking erect, he can reach the ground without bending the body. The female has the catamenia. This animal is about three feet high when standing erect, but sometimes grows to be as tall as a man; it is of a tranquil disposition and of gentle manners, receiving mildly what is given to it, and feeding, at least in confinement, mostly on bread, fruits, and almonds.

β. Lesser Gibbon.—*Simia Lar minor*.

Resembles the former, but is much less, being only about a foot and a half high; the body and face are of a brown colour.

Small gibbon. Sm. Buff. viii. 113. t. ccliv.—Lesser long-armed ape. Penn. H. of Q. n. 74. a. Miller's plates, xxvii. Schreber, 80. t. iii. f. 2. Lev. mus.

Inhabits Malacca.

7

γ. Silvery Gibbon.—*Simia Lar argentea*.

The body and arms are covered with silvery hairs ; the face, ears, crown of the head, and hands, are black. Penn. H. of Q. n. 74. β.

Inhabits the forests of Devat in the interior parts of Bengal.—This animal resembles the great Gibbon, except in colour, but is more elegantly made ; it is about three feet high when erect, very frolicksome and good natured. Was in the possession of the late Lord Clive some years ago.

8

4. Pigmy.—4. *Simia Sylvanus*. 2.

Has no tail. The buttocks are naked ; the head roundish ; and the arms shorter than the body.

Simia. Gefn. quad. 847.—Briff. quad. 188.—*Cercopithecus*. Jonst. quad. t. 59. f. 1.—*Pitheque*. Sm. Buff. viii. 106.—Pigmy-ape. Penn. H. of Q. n. 73.—Πιθηκος. Aristotle.—Its anatomy. E. N. C. d. 2. a. 7. obs. 40.

Inhabits Africa and Ceylon.—The face is short and flat, having a transverse projection at the region of the eye-brows ; the fur is harsh, and is reversed on the neck and fore-arms. It has a deep furrow in the middle of the scrotum, which hides the penis ; the testicles increase in size towards the autumnal season ; the female fundament is much swelled. This animal uses threatening gestures when angry, and chatters when pleased ; salutes passengers after the manner of the Caffres, and sips its drink from the palm of the hand. The tusks, or canine teeth, are not proportionally larger than those of man ; the face is flat ; and the nails are flat and rounded like those of mankind. It walks erect on two feet, and is about a foot and a half high ; of a mild disposition, and easily tamed. The female has the menstrual discharge, according to the ancients, and analogy forbids us to doubt the fact. The ears are like those of a man ; the body is about the size of a cat ; the general colour is an olive brown on the upper parts of the body, and yellowish on the lower.

9

5. Magot.—5. *Simia inuus*. 3.

Has no tail. The buttocks are naked ; and the head is oblong.

Simia cynocephala, dog-headed ape. Briff. quad. 191.—*Cynocephalus*, 1. and 2. Alpin. Ægypt. 241. tab. 15. f. 1. et tab. 16.—Magot. Sm. Buff. viii. 117. pl. cclv. and cclvi.—Barbary ape. Penn. H. of Q. n. 76.—*Simia inuus*. Schreber, i. 71. tab. v.

Is found in Tartary, Arabia, Æthiopia, Barbary, Mauritania, all Africa, as far as the Cape of Good Hope, and in India.—Resembles very much the *Simia sylvanus* and *cynocephalos*, but has a longer snout, and is of a paler colour than either ; it must not, however, be confounded with the Pigmy, or former of these species. All the nails are rounded. There is a small portion of skin at the rump, which has the appearance of a tail ; the cheeks are furnished with pouches ; the tusks are proportionally longer than those of man, and the under part of the snout is turned up like the muzzle of a bull-dog ; the face is downy ; the hair on the body is of a greenish brown colour, and that on the belly of a whitish yellow. He walks sometimes erect, but oftener on all four ; is from three, to three and a half feet high : The females menstruate, and are smaller than the males. It is fond of being in the open air, and by no means delicate, even in the climate of Europe ; of an ugly aspect, melancholy, and dirty ; chatters and grinds the teeth when irritated, or when hungry ;
has

has prominent callosities on the buttocks. The Count de Buffon thinks that there are several varieties of this species, though he has only described one.

10

6. Hog-faced Ape.—*Simia Suilla*.

Has a blunt truncated nose, exactly resembling that of a hog. Penn. H. of Q. p. 172, pl. xx. fig. 1.

The engraving of this animal, given by Mr Pennant, is from a copy of a drawing in the British Museum, but along with which there is no account to enable us to trace its history. Mr Pennant supposes it may be the *χοιροπιθηκος*, or *Simia porcaria* of Aristotle; as, at any rate, in his opinion, that animal must be an ape, and not a baboon, according to the Count de Buffon's idea; because the *πιθηκοι*, or apes of Aristotle, had no tails, and the baboons have.—So far as I can pretend to judge of Mr Pennant's figure, it seems a bad representation of the Mandril, or *Simia maimon*, though, from respect to the authority of that great naturalist, it is here inserted as a distinct species of ape.—T.

** BABOONS.—*PAPIONES*.

Have short tails; a long face; a broad high muzzle; longish dog-like tusks, or canine teeth; and naked callosities on the buttocks. They are only found in the Old World; and are the *Papiones* and *κυναειφάλα* of the ancients.

11

1. Maimon.—6. *S. Papio nemestrina*. 4.

Has a short tail, and a thin beard: Is of a brown grey colour; the eyes are hazel, and the buttocks are naked.

Short tailed ape. Edwards, av. v. p. 8. t. 214.—Maimon. Sm. Buff. viii. 137. pl. cclxii.— Pig-tailed baboon. Penn. H. of Q. n. 85.

Inhabits Sumatra.—Has cheek-pouches, callosities on the buttocks, and a naked curled up tail, from five to six inches in length; the tusks are not proportionally longer than in man; the orbits of the eyes are prominent; the eyes are chestnut coloured, with black eye-lids; the face is naked and tawny, the muzzle very large, the nose flat, and the lips thin, with some stiff hairs, which are too short to form whiskers; the ears, hands, and feet, are naked and tawny; the hair on the body is of an olive black colour, and reddish yellow on the belly; the male organs are concealed under the skin. It sometimes walks erect, but mostly on all fours; and, when erect, is from two to two and a half feet high. The female menstruates. This is a vivacious, gentle, tractable, and even caressing animal, without any of the immodesty and impudence of most baboons; and is very impatient of cold.

12

2. Little Baboon.—7. *S. Papio apedia*. 5.

The tail is short: The thumbs of the hands stand close to the fingers, having oblong nails on the fingers, and rounded nails on the thumbs; the buttocks are hairy. Amoen. ac. L. 278.

Little baboon. Penn. H. of Q. n. 83.—Petit Papion. Sm. Buff. viii. 121. pl. cclviii.

Inhabits India.—The head is roundish, with a projecting muzzle, and roundish naked ears; the hair on the body is yellow, tipped with black; the face is brown, and almost naked, having only a few scattered hairs; the nails are all compressed and oblong, except on the thumbs and great toes, the nails of which resemble man; the tail is very short, being hardly an inch long; the body is about the size of a cat.—It is uncertain if this animal should be considered as a distinct species, or only as a variety of the *Simia sciurea*?—Gmel.

13

3. Great Baboon.—8. *S. Papio Sphinx*. 6.

The tail is short; the mouth is furnished with whiskers; the nails are sharp pointed and narrow; and the buttocks are naked.

Papio. Gefner, quad. 252. t. 253. Aldrov. dig. 260. Jonst. quad. 145. t. 61. f. 1. Raj. quad. 158. Brill. quad. 192.—*Papion*. Sm. Buff. viii. 121. pl. cclvii.—*Simia sphinx*. Schreber, i. 80. tab. vi.—Great baboon. Pen. H. of Q. n. 76. pl. xvii. and xviii.

Inhabits Borneo, according to Gmelin; Buffon and Pennant say the hotter parts of Africa.—A strong, fierce, and libidinous animal, very apt to offer violence to women. The head is oblong, and resembles that of a dog, but more obtuse; the tail is short and erect; the buttocks are naked, and of a blood red colour; the cheeks have pouches; and there are large naked callosities on the buttocks, of a blood red colour edged with purple; the muzzle is thick and long; the ears are naked; the body is maffy and contracted, with thick, short, strong limbs; the male parts are large, naked, flesh-coloured, and pendulous; the hair is long, bushy, of a reddish brown colour, and pretty uniform over the whole body. It walks oftener on all fours than erect; is from three to four feet high when standing on the hind feet. This is a brisk, ferocious, disobedient, mischievous, and nasty animal; and insolently salacious, even to the use of manustupration. The female menstruates, and brings only one young at a time, which she carries in her arms fixed to the pap. It lives chiefly on fruits, roots, and seeds, gathering in crowds to rob gardens and cultivated lands, which it does with great dexterity.—The Count de Buffon considers this and the former species as only varieties of one species; which he thinks contains many varieties of different sizes, but agreeing in their general figure and manners. The individual seen by Mr Pennant, and referred by him to this species of the Linnæan system, was five feet high.—T.

14

4. Mantegar.—9. *S. Papio mormon*. 36.

Has a short tail, and is thinly bearded; the cheeks are tumid, naked, of a bright blue colour, and obliquely furrowed; the buttocks are naked, and of a blood-red colour. Alstroemer, Act. Holm. 1766, vol. 27. p. 138.

Short tailed, and bearded ape, simia, having sharp claws, and the top of the head surmounted with an erect tuft of hair, like a mitre. Kramer, anim. austral. 310.—Mantegar. Phil. Trans. n. 290.—Chloras. Breslauer Natur. Kunstgesch. xv. Verf. 177.—Tufted ape. Penn. H. of Q. p. 174. pl. xvi. f. 2.—*Simia mormon*. Schreber. i. 65. tab. viii.

Inhabits India.—The forehead is crowned with an erect pyramidal tuft of grey hair; the snout is long and naked, with the nose of a blood-red colour; the cheeks are naked, furrowed obliquely, and of a blue colour; the hair on the throat, and under part of the neck, is yellowish, gray on the upper part of the neck, brownish gray on the back, and whitish on the belly; on the loins the skin, which

which is of a violet colour, shines through a thin covering of hair; the buttocks have naked projecting callosities of a blood red colour; the middle of the belly is naked longitudinally, and of a blood red colour; the tail is very short; the claws of the fingers and toes are sharpish and compressed; those on the thumbs and great toes are flat and rounded.—I suspect that this is the same species with the Mandril, or *Papio maimon*, and that the pyramidal tuft on the fore head is the effect of art, for the purpose of imposition.—T.

15

5. Mandril.—10. *S. Papio Maimon*. 7.

Has a short tail, and a thin beard on the chin; the cheeks are blue, and striped; and the buttocks are naked.

Cynocephalus. Gesner, quad. 93. t. 93. Clus. exot. 370. Jonst. quad. t. 59. f. 4.—Dog-faced cercopithecus, having long hair on the fore part of the body, and the nose violet coloured and naked. Briff. quad. 214.—Mandril, or ribbed nose baboon. Sm. Buff. viii. 131. pl. cclix. cclx. cclxi.—Rib-nosed baboon. Penn. H. of Q. n. 77.—*Simia maimon*. Schreber, i. 74. tab. vii.

Inhabits Guinea.—Resembles the former in its blue, ribbed nose, but wants the tuft of hair on the fore head. It is an ugly and disgusting animal, of a fullen deformed aspect, with a squat body, very large head, long muzzle, and flat nose, perpetually distilling a nasty snout, which, with his tongue, he licks into his mouth. It has cheek-pouches, and callosities on the buttocks, which are of a blood red colour; the anus is conspicuous, and placed very high; the tail is not above two or three inches long; the tusks are much thicker and longer than in man; the muzzle is very thick, very long, and furrowed on each side with deep longitudinal ribs or wrinkles; the face is naked, and of a bluish or violet colour; the ears, palms of the hands, and soles of the feet are naked; the hair is long, reddish brown on the body, and gray on the breast and belly: This species walks oftener erect than on four feet; and, when erect, is from four to four and a half feet high, some individuals or varieties being still larger: The females menstruate: It is larger, and perhaps stronger, than the great baboon, or *Papio sphinx*, but more peaceable, and less ferocious; is found on the Gold Coast of Guinea, and other southern parts of Africa, where it is called *Boggo* by the negroes; it weeps and groans like mankind, and has a violent passion for women, whom it frequently attacks, and forces, when at a distance from relief.

16

6. Hoggish Baboon.—11. *S. Papio porcaria*. 48.

Has a short tail, and coloured buttocks; the head is like that of a hog, with a naked snout; the body is of an olive brown colour; the nails are sharp and compressed. Bodaert. Naturf. 22. p. 17. t. 1. 2.

Κηροπιθήκος. Aristotelis,

Inhabits Africa, and is about three feet and a half high when standing erect.—This, in all probability, is the same animal with the hog-faced ape, adopted from Pennant as the eighth species of the sub-genus ape in this edition.—T.

17

7. Wood Baboon.—*S. Papio sylvicola*.

The face, hands, and feet, are naked, black, and smooth, with white nails.

Wood baboon. Penn. H. of Q. n. 78. tab. xix.—Leverian mus.

Inhabits

Inhabits Guinea, where it is called *man of the woods* by the English.—Has a long dog-like face, covered with a fine grained, smooth, glossy, black skin; the hands and feet are naked, black, and glossy, like the face, and have white, flat, rounded nails; the body, head, limbs, and tail, are universally covered with longish close set hair, elegantly mottled with black and tawny; the ears are almost hid in the fur. It is about three feet high, when erect, and the tail is not three inches long.

18

8. Yellow Baboon.—*S. Papio variegata*.

Of a bright yellow colour, mottled with black; having a long black naked face, and the back of the hands are covered with hair. Leverian Mus. Penn. H. of Q. n. 79.

This animal strongly resembles the wood baboon, except in size, and having hairy hands: The face is long, black, and naked; the ears are hid in the fur; over the eyes are several long dusky hairs; the backs of the hands are covered with hair. It is about two feet high, and is probably a native of Africa; but its place, age, and history, are obscure.

19

9. Cinereous Baboon.—*S. Papio cinerea*.

Has a dusky face, with a pale brown beard; the body and limbs are of a cinereous brown colour; and the crown of the head is mottled with yellow. Leverian Mus. Penn. H. of Q. n. 80.

Its place and history are uncertain; but it probably comes from Africa; and is about two feet high.

20

10. Blue-faced Baboon.—*S. Papio livea*.

Has a bluish face; two very broad flat fore-teeth; and a pale brown beard. Leverian Mus. Penn. H. of Q. n. 81.

This animal is about three feet high; has long hairs over the eyes; and a tuft of hair behind each ear; the hair is black, mixed with cinereous, and dull rusty brown. Its place and history are unknown.

21

11. Brown Baboon.—*S. Papio platypygus*.

Has a dirty white face, surrounded with short straight hairs; and a broad large muzzle. Penn. H. of Q. n. 82. pl. xx. fig. 2.

Simia platypygus. Schreber, 89. tab. v. B.

The place and history of this animal are uncertain.—The upper parts of the body are brown, and the under parts ash coloured; the tail is about four inches long, tapers to a point, is almost bare, and quite naked on its under part.—Mr Pennant refers to this species an animal which he inserted in the first edition of his work on quadrupeds, under the name of *New baboon*.

22

12. Crested Baboon.—*S. Papio cristata*.

Has very long and dishevelled hair on the crown of the head and cheeks. Leverian Mus. Penn. H. of Q. n. 84.

Inhabits

Inhabits Africa.—Is about two feet high; and the tail, which is slender and taper, is about seven inches long; the body and limbs are covered with long, black hair; that on the head and cheeks is long, dishevelled, and of a dusky colour; the breast is whitish; the face, hands, and feet, are black and naked.

*** MONKEYS.—*CERCOPITHECI*.

Have long tails, which are not prehensile; the under parts of their cheeks are furnished with pouches, in which they can keep their victuals; the partition between the nostrils is thin, and the apertures are, like those of man, placed in the under part of the nose; the buttocks are naked, and provided with callosities. These animals, which are never found native in America, are the Cercopithecæ, and κίβητι, of the ancients.

23

1. Dog-tailed Monkey. 12.—*S. Cercopithecus cynosuros*. 37.

Has a long tail and no beard: The face is long, with a footy coloured fore-head, and a whitish band over the eyes; the male parts are highly coloured; the nails are convex. Scopoli delic. flor. et faun. Infubr. P. 1. p. 44. tab. xix.

This animal is about the size of a middling dog, being near two feet high when erect; it is deceitful, restless, and libidinous. Its country is unknown.

24

2. Tartarin.—13. *S. Cercopithecus hamadryas*. 8.

Has a long tail, and naked blood-coloured buttocks; the ears are hid in the hair; the nails are somewhat pointed.

Egyptian ape, having a long tail, and naked prominent buttocks. Hæfelquist, it. 189.—Ape, simia, having the upper part of the ears very hairy. Alpin. hist. nat. Egypt. 242. tab. 17.—19.—Cynocephalus. Gefner, quad. 252. f. p. 253.—Dog-faced baboon. Penn. H. of Q. n. 86.—Simia hamadryas. Schreber, i. 82. tab. x.—Le Tartarin. Belon. portrait. 102.

Inhabits Africa, Arabia, and Asia.—The tail of this species is scarcely so long as the body; long hair hangs down on each side, from the ears, like a flowing wig; the buttocks are naked, and of a blood-red colour: This species is about five feet high when erect; the head and face resemble a dog, the muzzle being long, thick, strong, and prominent, with a smooth red nose; the face is naked; and the ears are pointed, and hid in the hair; the hair on the sides of the head, and on the body, as far as the waist, is long and shaggy; on the top and hind part of the head, the limbs, and the body below the waist, it is short; the nails of the fingers are flat, but those of the toes are sharp and narrow.

25

β. Urline Tartarin.—*S. Cercopithecus hamadryas urfinus*.

That part of the head immediately above the fore-head is prominent, and terminates in a ridge.

Urfine dog-faced baboon. Penn. H. of Q. n. 86. β. Kolben. ii. 120. La Caille, 296.

Inhabits

Inhabits the Cape of Good Hope.—This species, or variety as Mr Pennant considers it, has a great head, long thick nose, and short ears; the crown is covered with long upright hairs; the part of the head immediately above the fore-head is prominent, and terminates in a ridge; the whole body is covered with long dusky hair, so that, at first sight, the animal appears like a young bear; the body is thick and strong, with short limbs; is four feet high when sitting, and as tall as a middle sized man when erect; the tail is half the length of the body, straight at the beginning, and arched at the end; the nails are flat and rounded; the buttocks are of a bloody red colour. The animals of this species are very numerous, and go in large troops in the mountains, where they set up an universal and horrible cry, for about a minute, when they see any one approach, and then conceal themselves in their fastnesses, keeping a profound silence: They sometimes descend into the plains, to pillage gardens, and then place centinels to guard against surprise.

26

3. Lowando.—14. *S. Cercopithecus veter.* 9.

Has a long tail, and is bearded: The body and limbs are white, and the beard is black.

Bearded white cercopithecus, with a black beard. Briff. quad. 147.—White or hoary ape, with a flowing black beard. Raj. quad. 158.—Lowando, or Elwandu. Sm. Buff. viii. 133.

27

β. White-bearded Lowando.—*S. Cercopithecus veter albibarbatus.*

This variety resembles the other in every thing, except in having a white beard. Sm. Buff. viii. 133.

Inhabits the Island of Ceylon.—This animal has all the characters of a baboon in figure and dispositions; it is wild and ferocious, and so mischievous that, when not tamed, it must be kept in an iron cage, where it is frequently agitated with vast fury; but, when taken young, it may be tamed easily: In a state of liberty it is extremely wild, and keeps always in the woods; is violently fond of women, and so strong as to ravish them, when found alone, and often injures them so as to prove fatal. It has cheek pouches, and callosities on the buttocks; the tail is seven or eight inches long; the tusks are longer and larger than in man; the muzzle is thick and long; the head is environed with a broad mane, and a large beard of white or black coarse hairs; the body is longish, and thin behind: It walks oftener on all fours than erect, and is from three to three and a half feet high: The females menstruate.

28

4. Wanderu.—15. *S. Cercopithecus filenus.* 10.

Has a long tail, and is bearded: The body and flowing beard are both black.

Bearded black cercopithecus, having a bushy beard all round the face. Briff. quad. 209.—Ape, with a flowing beard, of the size of the large dog-faced kind. Alpin. Ægypt. 242. t. 21.

29

β. White-bearded Black Wanderu.—*S. Cercopithecus filenus albibarbatus.*

Resembles the former, but the beard is white.

Simia filenus, having a black body and limbs, and a bushy white beard. Lin. Syft. nat. edit. x. p. 26.—Bearded black cercopithecus, having a flowing hoary beard. Raj. quad. 158.—Ouanderou or Wanderu. Sm. Buff. viii. 133. pl. cclxiii.—Lion-tailed baboon. Penn. H. of Q. n. 88.—*Simia filenus.* Schreber, i. 88. tab. xi.

Inhabits.

Inhabits Ceylon and the rest of India.—The two last species, the Lowando and Wanderu, are considered only as varieties of the same species, differing chiefly in the colour of their bodies and beards, and as Baboons, both by Mr Pennant and the Count de Buffon; and the description given by the latter naturalist may therefore be applied to all the four varieties.—T.

30 7. Tie-tie Wanderu.—*S. Cercop. filenus Tie-tie.*

Is about two feet high, and as black as jet, with a long white beard.

Variety ♂ of the Long-tailed Baboon. Penn. H. of Q. n. 88. ♂.—Little bearded men. Barbot, voy. Guinea, 212. Bosman 242.

Inhabits Guinea.—This species is much valued by the negroes on account of its beautiful skin, which sells for eighteen or twenty shillings, being used to make caps for their Tie-ties or public criers.

31 8. Purple-faced Wanderu.—*S. Cercop. filenus purpuratus.*

Has a great triangular white beard, which is short and pointed on the chin, and extends on each side, like wings, far beyond the ears.

Purple-faced monkey. Penn. H. of Q. n. 89. pl. xxi. fig. 2.

Inhabits Ceylon.—This is a very harmless animal, which lives in the woods, feeding on leaves and buds of trees; and, when taken young, is easily tamed: The body is black, and the face and hands purple; the tail is much longer than the body, and is terminated by a dirty white tuft.

32 5. Malbrouk.—16. *S. Cercopithecus faunus.* 11.

Has a long tail, and is bearded: The tail is bushy at the extremity.

Bearded cercopithecus, of a white colour on the belly, having a hoary pointed beard, and the tail bushy at the extremity. Briss. quad. 209.—First bearded cercopithecus. Clus. exot. p. 371.—Malbrouk. Sm. Buff. viii. 148. pl. cclxviii.—*Simia faunus*. Schreber, I. 90. tab. xii.

Inhabits Bengal.—This species has cheek-pouches, and callosities on the buttocks; the tail is nearly as long as the body and head; and it is a mistake of Clusius that it terminates in a tuft; the face is of a cinereous grey colour, with a large muzzle, and large eyes, which have flesh-coloured eyelids, and a grey band crosses the fore-head in the place of eye-brows; the ears are large, thin, and flesh-coloured; the upper parts of the body are of a uniform yellowish brown colour, and the lower of a yellowish grey: It walks on all fours, and is about a foot and a half from the muzzle to the extremity of the tail. The females menstruate.

33 6. Macaque.—17. *S. Cercopithecus cynomologus.* 15.

Has no beard: The nostrils are thick and divided; the tail is long and arched; and the buttocks are naked.

Cercopithecus cynocephalus, having thick, bifid nostrils, and naked buttocks. Briss. quad. 213.—Larger cercopithecus from Angola. Raj. quad. 155.—Macaque. Sm. Buff. viii. 140. pl. cclxiv.—Hare-lipped monkey. Penn. H. of Q. n. 91.—*Simia cynomologus*. Schreber, I. 91. tab. xiii.

Inhabits Africa.—This animal has cheek-pouches, and callosities on the buttocks; the body and head are about eighteen or twenty inches long, and the tail is of the same length; the head is large; the face is naked, livid, and wrinkled, with a very thick muzzle; the ears are covered with hair; the body is short and squat; and the limbs are thick and short; the upper parts of the body are of a greenish ash colour, the breast and belly are yellowish grey: It walks sometimes erect. Of this species there appear to be varieties much larger than the one here described, and others much smaller. Its dispositions are mild and tractable; but it is dirty, ugly, loathsome, and disgusting.

34

7. Dog-headed Monkey.—18. *S. Cercopithecus cynocephalos*. 16.

Has no beard, and is of a yellow colour; the muzzle is long; the tail long and straight; and the buttocks naked.

Dog-headed cercopithecus, having its hair of a mixed greenish and yellowish colour. Briss. quad. 213.—Cercopithecus. Jonst. quad. t. 59. f. ult.

Inhabits Africa.—This animal has a strong resemblance to the *Simia inuus*, or Magot baboon, except in having a long tail, while that of the formerly described animal is short.

35

8. Spotted Monkey.—19. *S. Cercopithecus Diana*. 17.

Has a beard, and a long tail: The hair on the fore-head and the beard are pointed.

Aët. Stockholm. 1754, p. 210. tab. 6.

Bearded cercopithecus, of a brown colour, sprinkled with small white spots, and having a white beard. Briss. quad. 148. n. 23.—Bearded cercopithecus from Guinea. Raj. quad. 159.—Second bearded cercopithecus. Clus. exot. 371.—Spotted monkey. Penn. H. of Q. n. 92.—*Simia diana*. Schreber, I. 94. tab. xiv.

Inhabits Guinea and Congo.—When young, this animal is exceedingly playful; it salutes passengers by nodding with its head, and, when angry, it chatters its teeth, holding its mouth wide open; when full grown, the tusks grow long, and the animal becomes ill tempered and fond of biting; it keeps its bed or nest very clean; when called, answers *greck*; is about the size of a middling cat; of a black or dark brown colour, spotted with white; the back is of a rusty brown colour, the inner parts of the thighs pale red, the throat and breast white; the beard is black at its upper part, the lower part is white, long, and pointed, and rests on a fatty protuberance; the hair on the fore-head is white, erect, and pointed, having a white transverse line, or band, in form of a crescent; a white line passes along the outside of each thigh from the anus to the knee; the tail is long, straight, and of a black colour, as are the face, ears, belly, and feet.

36

9. Green Monkey.—20. *S. Cercopithecus sabaeus*. 18.

Of a yellowish green colour, and beardless: The tail is long and ash-coloured; the face black, and the buttocks naked.

Yellowish ash-coloured cercopithecus, having the cheeks furrounded with long white hairs. Briss. quad. 145. n. 17.—Cercopithecus from St Jago. Edw. av. v. 210. t. 215.—*Callitrix*. Sm. Buff. viii. 160. pl. cclxxiii.—Green monkey. Penn. H. of Q. n. 95.

Inhabits

Inhabits the Cape de Verd islands, the Cape of Good Hope, and the neighbouring countries in the south of Africa; likewise in Senegal, Mauritania, and India.—This animal is much of the same size with the *Simia diana* and *Aygula*, being as large as a middle sized cat; the upper part of the body is of a mixed ash, green, and yellowish colour; the throat, breast, belly, and thighs, are white; the face is naked and black; the temples are covered with long, reversed, yellowish-white hairs; the eye-brows are black and hairy; the tail is white, straight, and much longer than the head and body; the feet are ash-coloured; the nails, on the toes, are rounded, and those on the fingers are oval; it has cheek-pouches, and callosities on the buttocks; the head is small, with a long muzzle; instead of eye-brows, a band of black hairs runs along the bottom of the front; the body is of a vivid green colour, mixed with a little yellow: It walks on four feet, and is about fifteen inches from the nose to the origin of the tail: The females menstruate.

37

10. Moustache.—21. *S. Cercopithecus cephus*. 19.

Has a beard on the cheeks; the crown of the head is yellowish; the feet are black; and the tip of the tail is of an ash colour.

Blackish cercopithecus, having long yellowish-white hair on the cheeks and ears, and a bluish mouth. Briss. quad. 206.—Other bearded cercopithecus from Guinea. Raj. quad. 156.—Moustache. Sm. Buff. viii. 163. pl. cclxxiv. Penn. H. of Q. n. 97. *Simia cephus*. Schreber, i. 102. tab. xix.

Inhabits Guinea.—This is about the same size with the *Simia diana*: The upper parts of the body are of a brown colour, and the under parts of a bluish white; the hair on the head is whitish and erect, having a white semilunar transverse line on the eye-brows; the upper eye-lids are white; the hair on the cheeks sheds outwards; the mouth is bluish; the body is short and squat; the lips below the nose are of a bright white, and the rest of the face is of a blackish or dirty blue colour, and naked, except a border of black hairs which surrounds the margin of both lips; there are two large tufts of yellow hairs under the ears, one on each side, in form of large whiskers or mustachios, which give the animal a singular appearance, and from which the trivial or specific name is derived; there is likewise a tuft of curled hair on the top of the head; it has cheek-pouches, and callosities on the buttocks; walks only on all fours, and is about eighteen inches in length from the muzzle to the origin of the tail, which is an inch or two longer. The body is of a greenish ash colour, and the belly and breast of a whitish ash: The female menstruates.

38

11. Mangabey.—22. *S. Cercopithecus aethiops*. 38.

Has a white erect fore-top, and a white semilunar arch on the fore-head; is beardless. Lin. Syst. nat. ed. x. p. 28. n. 14.

Mangabey. Sm. Buff. viii. 154. pl. cclxx.—White eye-lid monkey. Penn. H. of Q. n. 96.—*Simia aethiops*. Schreber, i. 105. tab. xx. xxi.

39

β. Collared Mangabey.—*S. Cercopithecus aethiops torquatus*.

Has a broad collar of white hair which surrounds the neck and cheeks. Sm. Buff. viii. 154. pl. cclxxi.

Inhabits Madagascar.—These two animals are varieties of the same species, and were both sent to the Count de Buffon, as apes or monkeys, from Madagascar: They both have cheek-pouches, and callosities on the buttocks; they have a thick, broad, long muzzle, and a prominent ring round the eyes; but their characteristic mark of difference from other monkeys is, that the eye-lids are naked, and of a very splendid white colour; the eye-brows consist of stiff, crisped hair; and the ears are black, and almost naked: They walk on all fours; are nearly a foot and a half long from the muzzle to the rump, and the tail is about the same length, is carried arched over the body, and is covered with long bushy hair: The females menstruate. In the first variety, the hair on the head, neck, and upper parts of the body, is of a yellow brown colour, and that on the belly is white or grey: In the collared Mangabey, the hair on the head and body is lighter coloured; and this variety is distinguished by a broad collar of white hair which furrounds the neck and cheeks, in the form of a beard.

40

12. Egret.—23. *S. Cercopithecus aygula*. 21.

Of a grey colour, and almost beardless; having an erect tuft of hair on the top of the head, standing longitudinally backwards. Osbeck. iter. 99.

Black ape, Simia, of a middle size. Edw. av. 221. t. 311.—Egret. Sm. Buff. viii. 140. pl. cclxv. Penn. H. of Q. n. 101.—Simia aygula. Schreber, i. 106. tab. xxii.

Inhabits India, and chiefly the island of Java.—The upper part of the body is of a grey colour, much like that of a wolf; the throat, breast, and belly, are whitish; the tail is longer than the body, and is of a pale ash colour; the face is of a dirty white, naked, and flattish; the nose is flat, very short, at a distance from the mouth, and has two furrows on the upper lip; the cheeks have a thin beard, which is shed backwards; the fore-head, above the eyes, is protuberant, and has hairy eye-brows; the feet are black, and have short membranes which connect the under parts of the toes with each other; the nails on the thumbs and great toes are rounded; those on the toes and fingers are oblong; the ears are pointed; a curved ridge of hair runs from the ear, on each side, behind the eyes to the base of the lower jaw; there is likewise a longitudinal seam or ridge of hair on each fore-arm. The Count de Buffon considers this animal as a variety of the Macaque, or Simia Cynologus, No. 22.; from which, according to him, it only differs in being about one third less in all its dimensions; in the peculiar form of the crest, or egret, from which the trivial name is derived; in the fore-head hair being black instead of greenish, which it is in the Macaque; and in the tail of the Egret being proportionally longer.

41

β. Monea.—*S. Cercopithecus aygula Monea*.

Dr Gmelin, the learned editor of the System of Nature, adds, that he has seen a monkey of this species, which he considers as a variety: The head was more rounded, the face less black, and the colour of the body less on the rusty brown: This animal, while chained, was continually jumping about.—Mr Pennant, in his History of Quadrupeds, No. 102. describes a monkey from Java under the name of Monea, as being tufted like the Egret, having the upper parts of the body of a rusty brown colour, and the under parts whitish. Both of these are probably either the same, or slightly differing varieties of the Egret.—T.

42

13. Nodding Monkey.—24. *S. Cercopithecus nictitans*. 23.

Is of a black colour, mottled with paler spots, and having a white nose: The thumbs are very short; the buttocks are covered with hair; and the chin is beardless.

Another cercopithecus from Angola, of a black colour, mottled with blackish grey spots all over the body, and having a white nose. Marcgr. Bras. 227.—White-nosed monkey. Penn. H. of Q. n. 98.

43

β. Bearded Nodding Monkey.—*S. Cercopithecus nictitans barbatus*.

Exactly like the former, except that it has a long white beard on the chin. Penn. H. of Q. n. 19.1.

Inhabits Guinea.—This is a playful animal, which continually nodded with its head: It was seen by Dr Alfraemer, who has given a description, in the possession of Professor Burman of Amsterdam: It is nearly of the same size with the Pigmy, or *Simia sylvanus*; has a small mouth, hairy face, yellow irides, and is naked round the eyes; the lips and chin are whitish; the tail is black, straight, cylindrical, and longer than the body; the feet are black, and the thumbs are not longer than to the first joint of the fore-fingers.

44

14. Rillow.—25. *S. Cercopithecus sinicus*. 39.

The hair on the top of the head is parted circularly, and lies flat, shading the whole head: Has no beard. Mantiss. pl. ii. p. 521.

Chinese bonnet. Sm. Buff. viii. 148. pl. cclxix.—Rillow. Knox's Ceylon. 26.—Chinese monkey. Penn. H. of Q. n. 104.

45

β. Bonneted Rillow.—*S. Cercopithecus sinicus pileatus*.

The hair on the top of the head stands erect, and forms the appearance of a round black bonnet: The body is of a brown colour; the legs and arms are black: Is about the size of a small cat. Penn. H. of Q. n. 105.

Inhabits India.—The tail is much longer than the body; the nails of the thumbs and great toes are rounded, those on the fingers and toes are oblong; the muzzle is long, smooth, and of a dusky colour; the upper parts of the body are of a pale brown colour mixed with yellow, and the under parts are whitish.—This animal is probably a variety of the Malbrouck, or *Simia faunus*, from which it differs by having rather a longer tail, and by the particular disposition of the hair on the top of the head, which lies flat, and is parted circularly like a Chinese bonnet, from which circumstance its vulgar name is derived.

46

15. Douc.—26. *S. Cercopithecus nemeus*. 40.

Has a beard on the cheeks, and a white tail. Mantiss. plant. ii. p. 251.

Ash-coloured cercopithecus, having the cheeks surrounded with long, yellowish-white hairs, and a purplish-brown collar round the neck. Briff. quad. 146.—Douc, or Sifac. Sm. Buff. viii. 168. pl. cclxxvi.—Cochin-China monkey, or Sifac. Penn. H. of Q. n. 107.—*Simia nemeus*. Schreber, i. 110. tab. xxiv.

Inhabits

Inhabits Cochin-China and Madagascar.—Is about two feet high, according to Dr Gmelin, though the Count de Buffon says that this species is from three and a half to four feet in height; and Mr Pennant informs us that he is as tall as a man. The skin of the face and ears is almost scarlet, with a band of a darker brownish colour on the fore-head; and these parts have a blackish hair or down; the face is surrounded with hair of a whitish colour, intermixed with yellow; the collar, on the upper part of the neck, is of the same colour with the band on the fore-head; the shoulders, upper parts of the arms and thighs, and the toes, are black; the hands and groins are whitish; and the feet and legs, as far as the knees, are brown: The Bezoar of the Ape is chiefly procured from this species. This animal is allied to the monkeys by the length of the tail, to the baboons in size, and to the apes by the flatness of the face; and seems to form a shade between the monkeys and sapajous, as, like the latter, the buttocks are hairy, and the muzzle flat; but, besides the circumstance of this species being an inhabitant of the old world, the tail not being prehensile, and other essential characters, separates the Douc from the sapajous, and fixes the species among the monkeys. There are no callosities on the buttocks; the tail is not so long as the head and body; the face is red, and covered with a reddish down; the ears are of the same colour, and naked; the lips and orbits of the eyes are dark brown, or black; there is a purplish-brown collar round the neck; and a whitish-yellow beard surrounds the cheeks; the top of the fore-head, and upper part of the arms, are black; the fore-arms, and under part of the fore-head, whitish; the top of the head and the body are grey; the breast and belly yellow; the lower parts of the legs are whitish; the upper part of the thighs black; and the tail, under part of the loins, and inside of the thighs at the top, are whitish. It walks as often on two feet as on all fours. It is uncertain whether the females menstruate.

47

16. *Monina* *.—27. *S. Cercopithecus Mona*. 41.

Has a prominent, semilunar, whitish-grey, arch over each eye; and is bearded.

Cercopithecus, covered with variegated black and tawny hair; having black feet, and an ash-coloured tail. Briff. quad. 141.—*Mona*. Sm. Buff. viii. 156. pl. cclxxii.—Varied monkey. Penn. H. of Q. n. 106.—*Simia mona*. Schreber, i. 97. tab. xv.

Inhabits Morocco, and the warmer parts of Asia.—This is the most common of the monkeys, and agrees best of any with the climate of Europe: It is found in Barbary, Persia, Arabia, and many places of Asia, where it was known to the ancients under the name of Kebos, Cebus, or Coephus, on account of the variety of its colours. The names Mone, Mona, Monina, and Mounina, are used in the Moreak, Spanish, and Provençal languages, for all long tailed monkeys; and from these the barbarous Latin Monichi, and English Monkey, seem derived. This species has cheek-pouches, and callosities on the buttocks; is about a foot and a half from the muzzle to the rump, and the tail is about two feet long; the head is small and round, the face is a bright tawny brown, the muzzle thick and short; there is a kind of grey beard, formed by the hairs on the throat, and the cheeks are surrounded with a beard of white, yellow, and black, hairs interspersed; the hair on the top of the head is a mixture of yellow and black; there is a grey band over the fore-head; and a
black

* I have, in general, preferred single names for the several species, as much as possible; using the appellations given in the countries where the animals are found, in imitation of the Count de Buffon: The name he gives to this species is *Mona*; but, as this comes rather too near *Monea*, which is formerly employed for a variety of the *Egrer*, No. 41. I have used, for this species, a synonyme, given likewise by Buffon.—T.

black band extends from the eyes to the ears, and thence to the shoulders and arms; the hair on the body is a reddish black; the belly and insides of the thighs are whitish; the outside of the legs and feet are black; the tail is greyish-brown, with two white spots on each side of the rump: It walks on all fours, and the females menstruate. One kept by Buffon, for several years, was very tractable, and became much attached to his acquaintance, but was shy, and even ill tempered, to strangers; it eat of every thing, roasted meat, bread, and particularly fruits, and searched for spiders, ants, and other insects.

17. Patas.—28. *S. Cercopithecus ruber*. 42.

Has a beard on the cheeks: The top of the head, back, and tail, are of a blood-red colour.

Patas, or red monkey. Sm. Buff. viii. 144. pl. cclxvi. cclxvii.—Red monkey. Penn. H. of Q. n. 103.—Simian rubra. Schreber, i. 98. tab. xvi.

48

α. Black-banded Patas.—*S. Cercopithecus ruber nigro-fasciatus*.

Has a black band over the eyes, and a yellow beard.

49

β. White-banded Patas.—*S. Cercopithecus ruber albo-fasciatus*.

Has a white band over the eyes, and a white beard.

Inhabits Senegal, Congo, and the other hot parts of Africa.—These two animals are only varieties of the same species: Both have cheek-pouches, and callosities on the buttocks; the top of the head is flat, and the muzzle, body, and legs, are long; in both, the hair on the upper parts of the body is of a brilliant red colour, so vivid as to appear painted; and that on the under parts, as the throat, breast, and belly, is of a yellow grey colour; both have long hair under the chin and round the cheeks, forming a fine beard, which is yellow in the first variety, and white in the second. In all probability there are other varieties of this species, some of them a good deal larger than those now described. In the first variety, a black line extends over the eyes from ear to ear; and in the second this line is white. This species walks mostly on all fours, and is about a foot and a half, or two feet, in length from the muzzle to the origin of the tail, which is longer than the body. The females menstruate.

50

18. Talapoin.—29. *S. Cercopithecus Talapoin*. 43.

Has a beard on the chin and cheeks: The ears, nose, and soles of the feet, are black.

Talapoin. Sm. Buff. viii. 165. pl. cclxxv. Schreber, i. 101. tab. xvii. Penn. H. of Q. n. 99.

Inhabits India.—This species is about a foot long from nose to rump, and the tail is near eighteen inches in length; it has cheek-pouches, and callosities on the buttocks; is of a beautiful figure, and brownish green colour, with the tip of the nose black.

51

β. Black Talapoin.—*S. Cercopithecus Talapoin niger*.

Like the former, but of a black colour. Edw. gleanings, 221. Bosman's voyage, 258.

The head, back, arms, legs, and tail, are covered with longish, loose, dusky, black hair; the breast, belly, and insides of the thighs, are of a dusky flesh colour, and almost naked; the head is roundish; the skin of the face is tawny, and thinly covered with black hair; the ears are like those of man; the four paws are covered with soft black skin, having very little hair. This variety is about the size of a large cat, and is gentle and playful in its manners.

52

19. Agile Monkey.—30. *S. Cercopithecus petaurifus*. 44.

Is bearded: The back, upper part of the tail, and outer sides of the legs, are of a very dark blackish olive colour; and the face is black, having a triangular white spot on the nose.

Blanc-nez. Allamand, ed. of Buffon, xiv. p. 141. t. 39.—*Simia petaurista*. Schreber, i. 103. tab. xix. B.

Inhabits Guinea.—A gentle and docile animal, about thirteen inches long from the muzzle to the rump, and having a tail near twenty inches long.

53

20. Negro Monkey.—31. *S. Cercopithecus maurus*. 45.

The cheeks, and the whole face, are bearded, except the eye-brows, the space between the eyes, and the point of the nose: The body is of a reddish-brown colour.

Middle sized black monkey. Edw. av. 3. p. 221. t. 311.—Small ape, *fimiolus*, from Ceylon. Seba, thef. i. 77. t. 48.—Negro monkey. Penn. H. of Q. n. 100.—*Simia maura*. Schreber, i. 107. tab. xxii. B.

Inhabits Ceylon and Guinea.—This is an active little animal, about the size of a small cat, being only seven inches high, when sitting, and the tail is longer than the body: It has a round head, with a sharp muzzle, and a tawny flesh-coloured face, having a few scattered black hairs; the body, limbs, and tail, are black and hairy; the breast and belly are of a tawny flesh-colour, and almost naked; the feet and hands are black, naked, and soft.—This species seems to agree very much with the black variety of Talapoin, No. 51.; inasmuch that there can be little doubt of both descriptions referring to the same animal, or at least to different varieties of the same species.—T.

54

21. Roloway.—32. *S. Cercopithecus Roloway*. 46.

Has a beard: The head, back, and outsides of the hands and feet, are black; the inside of the hands and feet, the belly, and a circular beard round the triangular face, are white.

Palatine, or roloway. Allamand, ed. of Buffon, xv. 77. t. 13. Pen. H. of Q. n. 90.

Inhabits Guinea.—A gentle animal, about a foot and a half from muzzle to rump, with a tail nearly of the same length; the face is triangular, black, naked, and is bordered all round with hairs; and the chin is provided with a long forked beard.

55

22. Long-nosed Monkey.—*S. Cercopithecus nasuus*.

Has a long, slender, naked, and flesh-coloured, projecting face and muzzle, and no beard.

Penn. H. of Q. n. 93. pl. xxiii. fig. 1.

Its place is uncertain, but believed to be from Africa.—The face is long, naked, and flesh coloured, with a projecting slender muzzle; and the head is covered with thick longish hair, which falls backwards, through which the ears, which are small, pointed, and somewhat naked, project; the hair on the upper part of the body and limbs is long, and of a pale rusty brown colour, mixed with black, as is the hair on the head; that on the breast and belly is of a light ash colour; when sitting, the height is about two feet, and the tail is very long: This is a good natured animal, having a face very like that of a long nosed dog, but is very little known: The description is taken from a drawing by Mr Paillou, a painter of animals.

56

23. Prude.—*S. Cercopithecus capistratus*.

Under this name Mr Pennant has figured a long tailed and long visaged monkey, which he thinks may possibly be related to the former animal, but of which he gives no description. Penn. hist. of quad. p. 187. pl. 23. f. 2.

57

24. Yellowish Monkey.—*S. Cercopithecus luteolus*.

Has very large tusks; large, black, naked ears, and long pale yellow locks on the cheeks shed backwards. Leverian Mus. Penn. hist. of quad. n. 94.

Is supposed to inhabit Guinea.—The face is black, having long hairs above each eye; the throat and breast are of a yellowish white; the crown of the head, upper part of the body, arms, and thighs, of an ash colour, mixed with yellow; on the lower part of the arms and legs, and on the tail, the ash colour prevails; the hair on the body is coarse; and the tail is as long as the body: It is about the size of a fox.

58

25. Tawny Monkey.—*S. Cercopithecus fulvus*.

Has long tusks in the lower jaw; the visage is long and flesh coloured, with flesh coloured ears, and a flattish nose. Penn. hist. of quad. n. 108.

Inhabits India.—This is a very ill natured animal, about the size of a cat; it was lately in the possession of Mr Brook, an animal merchant and exhibitor in London: The upper parts of the body are covered with a pale tawny coloured fur, which is ash coloured at the roots; the hinder part of the back is orange coloured, the legs ash coloured, the belly white, and the tail shorter than the body.

59

26. Greenish Monkey.—*S. Cercopithecus viridens*.

Has a black face, long black hairs on the cheeks, a pale green coloured body, grey limbs, and a dusky coloured tail. Penn. hist. of quad. p. 197.

Its place unknown.—This animal, which Mr Pennant considers as a variety of the Tawny Monkey, was communicated to that celebrated naturalist by Mr Paillou.

60

27. Hircine Monkey.—*S. Cercopithecus hircinus*.

Has a naked blue face, obliquely ribbed; a long, goat like beard, and a long tail; the body and limbs are of a deep brown colour.

Goat monkey. Penn. hist. of quad. n. 109.

The place and history of this animal are unknown.—The above description is taken from a drawing, in the British Museum, by Kikius, an excellent painter of animals.

61

28. King Monkey.—*S. Cercopithecus regalis*.

Has no thumb on the hands ; the head, cheeks, throat, and shoulders, are covered with long, flowing, coarse hairs. Leverian Mus.

Full-bottom monkey. Penn. hist. of quad. n. 110. pl. xxiv.

Inhabits the forests of Sierra Leone in Guinea, where it is called Bey, or King Monkey.—It is above three feet high when erect: The head is small, with a short, black, naked face; and the head, cheeks, throat, neck, and shoulders, are covered with long, coarse flowing hairs, of a dirty yellowish colour, mixed with black, and resembling a full bottomed wig; the body, arms, and legs, are covered with short hairs, of a fine glossy black colour; the hands are naked, and have no thumbs; the feet have five very long slender toes, which are armed with narrow, pointed claws; the tail is very long, and is covered with snow white hairs, having a tuft at the end; the body and limbs are very slender: Its skin is held in high estimation by the negroes for making pouches and gun cases.

62

29. Bay Monkey.—*S. Cercopithecus badius*.

Has no thumbs on the hands ; the tail is very long, slender, and black; and the body and limbs are very slender. Leverian Mus. Penn. hist. of quad. n. 111.

Inhabits Sierra Leone in Guinea, from whence this and the former species were brought over to Britain, and presented to Sir Ashton Lever's museum.—The body and limbs are very long and meagre; with a very long, slender, black tail; the crown of the head is black; the back of a deep bay; the outside of the limbs are black; the cheeks, under part of the body, and the legs, are of a very bright bay colour; the feet have five long toes on each.

63

30. Annulated Monkey.—*S. Cercopithecus fuscus*.

The tail is shorter than the body, and is annulated with alternate rings of darker and lighter brown. Penn. hist. of quad. n. 112.

Its place and history unknown.—It has a flat face, with long hairs on the fore-head and cheeks; the upper parts of the body and limbs are of a tawny brown, and the belly of an ash colour; the hands are black and naked. Mr Pennant describes this species from a drawing in the British Museum, and refers it to the *Simia apella* of Linnæus, which it cannot possibly be, as that species has a long prehensile tail, and belongs to the subgenus of Sapajous, under which it is arranged in this edition, by the trivial name of Capuchin; besides, Mr Pennant has inserted, in his excellent work, another species of Sapajou, which he names Weeper, and refers to the same Linnæan species.—T.

*** S A P A J O U S.—S A P A J I

Have prehensile tails, and no cheek-pouches.

These animals have long tails, which, at the extremity, is generally deprived of hair on the under side, and covered with a smooth skin; this part they can fold, extend, curl up, and unfold at pleasure;

sure; by which they are enabled to hang upon branches, or to lay hold of any thing which is beyond the reach of their hands, using the extremity of the tail like a finger or hand; the partition between the nostrils is very thick, and the apertures are situated on the sides of the nose; the buttocks are clothed with hair, and have no callosities; the cheeks have no pouches; the females of this subgenus do not menstruate; and this race of animals is only to be found in America: This subdivision of the genus is made, with great propriety, by Dr Gmelin, in imitation of the Count de Buffon.

64

1. Guariba.—33. *S. Sapajus Beelzebub*. 12.

Is of a black colour, with the extremity of the tail and the feet brown; and has a beard.

Black cercopithecus, with brown feet. Briss. quad. 194.—Guariba. Marcg. Brat. 226.—Howling baboon. Bancroft Guiana, 133.—Ouarine. Sm. Buff. viii. 176.—Preacher monkey. Penn. hist. of quad. n. 114. α.

Inhabits South America.—This species wanders in flocks, mostly at night, making the woods continually resound with hideous howlings: It is a fierce animal, about the size of a fox; having the body covered with long, black, smooth, and very short hair; and has a round black beard on the chin. According to Marcgrave, it has a large square face; black and brilliant eyes; and short roundish ears: The hair on the whole body is black, long, smooth, and lustrous; that on the chin and throat is longer, and forms a kind of roundish beard; the hair on the hands, feet, and extremity of the tail, is brown: The female resembles the male in every thing, except in being smaller: It is so wild and mischievous, as neither to be conquered nor tamed; bites cruelly; has a frightful voice, produced by means of a large concave bone in the throat; and a ferocious aspect: It generally walks on four feet; and feeds only on fruits, pot-herbs, grain, and some insects; and its flesh is reckoned very good eating.

65

2. Arabata.—34. *S. Sapajus femiculus*. 13.

Is of a dusky red colour; and has a beard on the chin.

Bearded cercopithecus, of a full red colour. Briss. quad. 206.—Alouata, red ape, or largest bearded cercopithecus, of a rusty colour, and having a strong founding voice. Barrere, Fr. equin. 150.—Arabata. Gumilla Oronoko, ii. p. 8.—Alouate. Sm. Buff. viii. 176.—Royal preacher monkey. Penn. hist. of quad. n. 114. β.

Inhabits the woods near Carthagena, in Cayenne, and on the river Amazons.—This species follows passengers, from the trees, with loud cries in a disagreeable hoarse voice; the herd scarcely allowing themselves to be looked at till the whole flock begins to roar all at once. It lives mostly on the fruit of the banana tree. The body is of a middle size, and of an uniform red colour; the mouth is situated on the anterior part of the face, having a large dependent chin, much like that of mankind. The Arabata only differs from the Guariba, by having a larger beard, and the hair of a reddish-brown colour; so that these two Sapajous may be considered as varieties of the same species: It is a savage animal, of a reddish-bay colour, as large as a calf; and, by means of a singular boney structure in the throat, makes a terrible noise, which is heard at a great distance.

66

3. Quato.—35. *S. Sapajus paniscus*. 14.

Has no thumb on the hands; is of a black colour; and has no beard.

Larger dark brown ape, having only four fingers on the hands; and the tail naked on the under side at the extremity, and prehensile. Brown Jamaica, 489.—Cercopithecus, wanting the thumb on the hands, and having the under side of the tail naked at the extremity. Briff. quad. 211. Coaita. Sm. Buff. viii. 184. pl. cclxxvii.—Quato. Bancroft's Guiana, 131.—*Simia paniscus*. Schreber, i. 115. t. xxvi.—Four-fingered monkey. Penn. hist. of quad. n. 115.

Inhabits South America.—An active, bold animal, fond of freedom, full of gambols, and impatient of cold: It is about the size of a mastiff, and of a black colour, sometimes dark brown; the limbs and waist are long and slender; these, and the farther half of the tail, are sometimes brown coloured, and sometimes black, like the rest of the body; it has four fingers only *, without any evident thumb on the hands, and five toes on the feet; there is, however, a very small thumb on the hands, at some distance from the rest of the fingers, which is concealed by being placed much inwards; the nails on the fingers are rounded; those on the toes are somewhat oblong and sharpish; the face is red, and naked, with bare ears; it has a very long prehensile tail, and wants the osseous pouch in the throat by which the two former species of Sapajous make their harsh noise; the skin is black, and covered with rough black hair, very thin on the under parts of the body; the face is naked and tawny, with naked ears resembling those of man; it is about a foot and a half long from the muzzle to the rump, and walks on four feet: This is a familiar and tractable animal.—There seem to be some varieties of this species, as Brisson describes one which had whitish hairs on all the under parts of the body; and Edwards Gleanings, 222. mentions two varieties, one black and the other brown.

67

4. Exquima.—*S. Sapajus Exquima*.

Is of a variegated black and yellow colour on the back; the throat and belly are white; has a beard. Sm. Buff. viii. 184.

Bearded cercopithecus from Guinea, called Exquima in Congo. Marcgr. hist. nat. Brasil. 227. fig. p. 228.

Inhabits South America.—This animal is nearly of the same size with the Coaita or Quato, last described, but differs in the colour, and in having a beard; it is, however, very nearly allied to, and perhaps only a variety of that species, which it resembles in disposition, size, and prehensile tail.

68

5. Sajou.—36. *S. Sapajus trepidus*. 20.

Has an erect tuft of hair on the fore-head, and no beard; the hands and feet are blue; the tail is long and hairy.

Buff-

* It is singular that the accurate Count de Buffon should, in his description of this animal, several times insist on the want of thumbs, while the plate given in his Natural History distinctly delineates the small short thumbs mentioned in the foregoing description from Dr Cmelin's edition of the *Systema Naturae*.—T.

Buff-tailed monkey. Edw. av. t. 212.—Brown variety of the Sajou, or Capuchin monkey. Sm. Buff. viii. 193. pl. cclxxviii.—Fearful monkey. Penn. hist. of quad. n. 116.

69

β. Grey Sajou.—*S. Sapajus trepidus fulvus*.

The hair round the face is grey, and of a brownish yellow on the body. Sm. Buff. viii. 193. pl. cclxxix.

Inhabits Surinam.—The body is brown on the upper, and rusty coloured on the under parts; the hair of the head forms a black, erect, hemispherical tuft; the tail is hairy, and the nails are all rounded.—Perhaps only a variety of the *Simia apella*, or Capuchin, No. 71. ? Gm.—The face and ears are flesh coloured, and somewhat downy; the eyes are chestnut coloured, and situated near each other; the tail is prehensile, naked below at the extremity, and very bushy every where else; the hands are always black and naked: It walks on four feet, and does not exceed a foot in length from the muzzle to the origin of the tail. There are two varieties of this species, the brown and the grey, which differ in colour only: They are both of the same size, and have the same figure and dispositions; are both very agile, nimble, dexterous, and amusing. Buffon had them both alive; and, of all the Sapajous, their constitution seems to be best adapted for the climate of Europe: If kept in a chamber during winter, they will live comfortably for several years; and there are several examples of the species producing in France. The females are apt to be mistaken for males from a remarkable prominence of the clitoris. It is a whimsical animal in its taste and affections, being fond of particular persons, and discovering the greatest aversion to others.

70

6. Horned Sapajou.—37. *S. Sapajus fatuellas*. 28.

Has two tufts of hair on the head, resembling little horns: Is beardless. Briff. quad. 195. n. 3. Penn. hist. of quad. n. 120.

Inhabits South America.—The face, sides, belly, and fore parts of the thighs, are brown; the top of the head, middle of the back, tail, legs, and posterior parts of the thighs, are black; the nails are long, and rather blunt; the tail is prehensile and twisted spirally. Perhaps of the same species with the *Simia apella*, or Capuchin? Gm.—This, in all probability, is one of the factitious species, purposely deformed, by exhibitors of wild beasts, to impose on the public.—T.

71

7. Brown Sapajou.—38. *S. Sapajus apella*. 29.

Has a long sub-prehensile tail, and no beard: The body is brown coloured, the legs black, and the buttocks hairy.

Brown cercopithecus, having the top of the head black. Briff. quad. 137. n. 1.—*Simia apella*. Schreber, i. 119. tab. xxviii.—Weeper. Penn. hist. of quad. n. 118.

Inhabits South America.—An active animal, constantly looking about on all sides, and is not much incommoded by cold weather; its cry resembles that of a hungry turkey pout; the circumference of the face has the appearance of having been shaved.—This and the Sajou, or *Simia trepida*, are probably the same species, and even the same variety, called Brown Sajou by the Count de Buffon.—T.

72

8. Sai.—39. *S. Sapajus capucinus*. 30.

Is of a brown colour, with erect black hair on the top of the head, and black limbs : Has a shaggy prehensile tail ; and is beardless.

Beardless black ape, Simia, with a long shaggy tail and yellowish face. Mus. Ad. Fr. 2. t. 2.—Cercopithecus entirely black. Briss. quad. 139. n. 5.—Sai, or Weeper. Sm. Buff. viii. 196. pl. cclxxx.—Capucin. Penn. hist. of quad. n. 117.—Simia capucina. Schreber, i. 120. t. xxix.

73

β. White throated Sai.—*S. Sapajus capucinus-albulus*.

Has white hair on the breast, throat, and round the ears and cheeks. Sm. Buff. viii. 196. pl. cclxxxvi.

This animal differs from the other variety, besides the circumstances mentioned in the character, by having less hair round the face ; but, in every other article, and in dispositions, size, and figure, they perfectly resemble each other.

Both inhabit South America.—This animal walks gravely, and does not skip about ; it is continually crying in a wailing and lamentable voice, and repels its enemies by horrible clamours ; often shrieking like the cricket ; and, when teased, yelps like a whelp ; carries the tail rolled up spirally, and very often wrapped round the neck : It smells rank of musk ; is about the size of a cat ; the body being of a dark brown colour, with the head, limbs, and tail, black ; the fore-head is sometimes black, and sometimes red, having a black, wrinkled, and moveable fold of the skin, just before the hair ; the nose, near the eyes, is furrowed ; and the tusks are placed near the other teeth ; the tail is long, prehensile, and always rolled up, and is covered with very long hair ; when sitting, the feet are placed in such a manner that the hind are always more advanced than the fore paws ; the face is round and flat, and the ears are almost naked ; on the upper parts of the body, the hair is of a blackish brown colour, and, on the inferior parts, of a pale yellow, or dirty white ; it does not exceed fourteen inches in length, from the muzzle to the rump, and the tail is longer than the body and head ; it walks on all fours ; is a mild, docile, and timid animal, whose common cry resembles that of a rat, and becomes a kind of groaning when threatened with danger. In Europe it eats May-bugs and snails, but in Brasil lives chiefly on grains and wild fruits.

74

9. Saimiri.—40. *S. Sapajus sciureus*. 31.

Has no beard ; the hinder part of the head is prominent ; and the nails, on the four toes of the hind paws, are narrow and pointed.

Beardless ape, Simia, having a long tail, a gibbosity on the back of the head, and the toe nails oblong. Mus. Ad. Fr. 3.—Cercopithecus, having its hair variegated with yellowish and whitish brown, and the legs of a reddish yellow or orange colour. Briss. quad. 197.—Small half-bearded American ape, with a long tail, having a bluish black muzzle, and oblong nails. Wagner Mus. Baruth. p. 1. t. 1.—Lesser yellow cercopithecus. Barrere fr. equin. 151.—Caitia. Marcgr. Praef. 227.—Saimiri. Sm. Buff. viii. 199. pl. cclxxii.—Orange monkey. Penn. hist. of quad. n. 119.—Simia sciurea. Schreber, i. 121. tab. xxx.

Inhabits South America.—A pleasant animal, which usually rests by lying on its belly ; stares in the face of such as speak to it ; and is very delicate in the climate of Europe : Its body is about the
size

size of a squirrel, and, when sitting, it is about seven inches in height; the upper parts of the body are of a greenish-grey colour, and the under parts whitish; the legs and arms are rusty-brown; the tail is hairy, having a black tip, and is twice the length of the body; the nails of the thumbs and great toes are rounded; the muzzle is of a bluish brown colour; the eye-brows are furnished with bristly hairs; and the ears are covered with a thin whitish down. This is the most beautiful of all the Sapajous; its movements are graceful, its size small, its colour a brilliant yellow, its visage round, with large vivacious eyes, surrounded by flesh-coloured rings; it has hardly any fore-head; the nose is elevated at the base, and flattened at the point; the mouth is small, the face flat and naked, and the ears are garnished with hair, and a little pointed; the tail is only half prehensile: It stands with ease on two feet, but commonly walks on all four.

75

β. Chestnut Saimiri.—41. *S. Sapajus sciureus mortus.* 32.

Of a chestnut colour, with a brown muzzle, and no beard, having a naked scaly tail.

Lesser American cercopithecus, called Monkie. Sebn Mus. 1. 22. t. 33. f. 1.—Cercopithecus with a chestnut coloured back, a smooth belly, and having a tail like a mouse. Britl. quad. 201.

Inhabits America.—This animal seems only to differ from the Saimiri by its lesser size, and from being younger; for which reason it is only ranked as a variety of the Saimiri, though, by Dr Gmelin, it is placed as a distinct species, in his edition of the *Système Naturae*.—T.

76

10. Magu.—42. *S. Sapajus fырichtus.* 33.

Is beardless, and has the mouth and orbits surrounded with long hairs.

Long tailed, beardless, cercopithecus, having a brown muzzle, and a naked scaly tail. Gronov. Zooph. 21.—Smallest cercopithecus, from the Philippine islands. Pet. gaz. 21. t. 13. f. 11.—Philippine monkey. Penn. hist. of quad. n. 113.—*Simia fырichta*. Schreber, 1. 152. t. xxxi.

Said to inhabit the Philippine islands.—This is an obscure species, which is mentioned only by Petiver, who says that the Indians call it Root, or Magu.

77

11. Variegated Sapajou.—*S. Sapajus variegatus.*

The hair on the sides and back of an intimately mixed orange and black colour.

Antigua monkey. Penn. hist. of quad. n. 121.

Its place uncertain.—A lively good natured animal, full of tricks: The body is about eighteen inches long, including the head, and the tail, by which it frequently hangs, is twenty inches long; the face is black, having a short nose, and long hair hanging down on each side of the cheeks; the back and sides are orange and black intimately mixed; the belly white; the outside of the legs black, and the insides ash coloured; the tail a dusky ash. This animal was brought from Antigua; but its native place is uncertain.

***** SAGOUINS.—*SAGOINI*.

Have long tails, which are proportionally longer than those of the Sapajous, straight, flaccid, entirely covered with hair, and not prehensile; that is, incapable of laying hold of any object: The cheeks have no pouches; and the buttocks, which are covered with hair, have no callosities: The partition between the nostrils is very thick, and the apertures are placed on the sides of the nose. The females do not menstruate. This race of animals is only found in America.

78

1. Saki.—43. *S. Sagoinus pithecia*. 22.

Is beardless, and the body is thickly covered with long hairs, which are black at the points; the tail is covered with very long hair.

Very small whitish ape, of a deep brown, almost reddish, colour on the back, having the tail very hairy. Brown. Jam. 489.—Cercopithecus, covered with black hairs, black at the points, and having the tail clothed with very long black hair. Briss. quad. 195.—Saki. Sm. Buff. viii. 201. pl. cclxxxiii.—Sakkawinkee. Bancroft. Guiana. 80.—Simia pithecia. Schreber, i. 125, tab. xxxii.—Fox-tailed monkey. Penn. hist. of quad. n. 122.

Inhabits South America.—An exceedingly amusing animal, and easily tamed: The body is black, all the hairs having white points, and is sometimes a foot and a half in height; the face has some very short white hairs; the throat and belly are covered with dirty whitish hairs; the nails are long and blunt; the face is tawny, and covered with a fine, short, whitish down; the hair on the upper parts of the body is blackish brown, and that on the belly and other inferior parts is reddish white; the hair on the tail is so long as to hang near two inches beyond the point. There are varieties of this species, at least in colour; some having the hair on the body and tail of a reddish yellow colour. The fore-head, and sides of the face, are surrounded with whitish and pretty long hair; the hands and feet are black, with claws instead of nails.

79

2. Sanglin.—44. *S. Sagoinus jacchus*. 24.

The ears are large, open, and very hairy; the tail is crooked, and very thickly covered with hair; the nails on the thumbs and great toes are rounded, while those of the fingers and toes are sharp and narrow.

Cercopithecus, variegated with alternate transverse bands of brown and whitish grey, having the ears surrounded with white hairs. Briss. quad. 202.—Sagouin, or third cercopithecus from Brasil. Clus. exot. 372. t. 372.—Galleopithecus, called Sagoin by the Brasilians. Gefn. quad. 369.—L'esser cagui. Marcgr. Bras. 227.—Sanglin, or lesser cagui. Edw. av. v. 15. t. 218.—Oistiti, or striated monkey. Sm. Buff. viii. 205. pl. cclxxxv. Penn. hist. of quad. n. 124.

80

β. Yellowish Sanglin.—*S. Sagoinus jacchus moschatus*.

Of a whitish yellow colour, and smelling strongly of musk. Briss. quad. 197.

First cercopithecus from Brasil. Clus. exot. 371

Inhabits Brasil.—An active, restless animal, which climbs trees like the squirrel, having a curved, but not prehensile, tail; it gnaws wood like the mouse, and lives on insects, fruits, milk, bread, tea, and small birds; is not tameable, and is fond of biting; a great enemy to cats, on whom it fixes itself under their bellies; emits a hissing kind of cry, and smells strongly of musk; is smaller than a squirrel, scarcely measuring eight inches from the muzzle to the rump, and the tail is considerably longer than the body; the head is very small, and of a black colour; with a white fore-head and white lips, the space between the eyes being of a yellowish colour; the fore part of the ears are covered with a long white fur, which excludes the wind; the tail is surrounded with white circular bands; it has four fore-teeth, the two outer ones being broad and parallel, and those on each side sharp pointed, and approaching each other; the tail is flaccid, very bushy, annulated with alternate bands of black and white, or rather brown and grey, and is twice as long as the body and head, which last do not exceed six inches; the face is naked, and of a tawny flesh colour, having two tufts of long white hair before the ears, which conceal them when the animal is viewed in the face; the ears are roundish, flat, thin, and naked; the eyes are of a reddish chestnut colour; the top of the front is covered with black hair; and above the nose there is a white naked spot; the body is covered with grey ash coloured hair, interspersed with a little yellow on the throat, breast, and belly: The sound emitted by this animal is articulate, and resembles the word *ouiffiti*, which is adopted as its name.

81

3. Pinche.—45. *S. Sagoinus Oedipus*. 25.

Is beardless: Has a flowing head of hair, which hangs down on each side; a red tail, and sharp claws.

Cercopithecus, covered with mixed red and brown hair; the face, as far as beyond the ears, is black and naked, and the top of the head is covered with long white hair. Briss. quad. 150. t. 28.
—Little lion-monkey. Edw. av. 3. p. 195. t. 195.—Larger cagui, from Brasil. Marcgr. Bras. 227.
—Pinche. Sm. Buff. viii. 211. pl. cclxxxvii.—Red-tailed monkey. Penn. hist. of quad. n. 126. pl. xxv.

Inhabits South America.—A brisk active animal, which imitates the motions of the lion: Resembles the former species a good deal in size, but is rather larger, and, like it, smells of musk: Its voice resembles that of a mouse: The body is small, about six inches long, of a grey colour on the upper parts, and white below; the face, as far as beyond the ears, is black and naked, with a few scattered white hairs, and having a wart on each cheek; the eyes are of a rusty brown colour; the ears are roundish, black, and naked; the claws are all narrow and sharp, except those on the short thumbs of the fore paws, which are rounded; the tail is twice the length of the body, is red at the base, and the rest of it black; the region of the anus is red. The figure of this animal is singular, though beautiful; it is rendered remarkable by a kind of smooth white hair dependent from the top and sides of the head, especially as the colour is wonderfully contrasted by that of the face, which is black, and interspersed with a grey down; the tail, from its origin to near the middle, is of a lively red, the rest of a brownish black; the hair, on the superior parts of the body, is of a yellowish brown colour, that on the breast, belly, hands, and feet, is white; the whole skin is black; the throat is naked and black, like the face; the muzzle is broad, and the face round; the voice is soft, and resembles the chirping of a small bird: It is about nine inches long from the muzzle to the rump, and walks on four feet; is extremely delicate, and difficult to transport from America.

82

4. Marikina.—46. *S. Sagoinus rosalius*. 26.

Is beardless: Has a very hairy head: The circumference of the face and the feet are red; and the claws are sharp and narrow.

Yellowish white cercopithecus, having the circumference of the face of a deep red colour. Briff. quad. 200.—Lesser cercopithecus, of a pale olive colour with a small head, called Acarima at Cayenne. Barrere Fr. equin. 151.—Marikina. Sm. Buff. viii. 209. pl. cclxxxvi.—Silky monkey. Penn. hift. of quad. n. 125.—*Simia rosalia*. Schreber, i. 130. tab. xxxv.

Inhabits South America.—A brisk animal, less impatient of cold than the rest of this race: The body is of a yellowish white colour; the nails on the thumbs and great toes are rounded; the ears are naked, but are hidden beneath the fur: It has a round head, and a brown face, which is surrounded with a kind of mane of a bright red colour; the hair on the body and tail is long, silky, and of a pale, but vivid, yellow colour, almost white, with a considerable tuft at the extremity of the tail: It walks on four feet, and is eight or nine inches in length, from the muzzle to the rump; and the tail is above thirteen inches long. This species has the same manners and vivacity with the other Sagoinus, but is more robust in constitution, as an individual lived five or six years in Paris, being kept in a warm room during winter.

83

5. Mico.—47. *S. Sagoinus argentatus*. 47.

Is beardless; of a silvery white colour, with a red face and brownish tail. Mant. pl. 2. p. 521.

Cercopithecus of a silvery white-grey colour, having a bright red face and ears, and a chestnut coloured tail. Briff. quad. 142. n. 103.—Mico. Sm. Buff. viii. 214. pl. cclxxxviii.—Fair monkey. Penn. hift. of quad. n. 127.—*Simia argentea*. Schreber, i. 131. tab. xxxvi.

Inhabits the country near the river Amazons in South America.—This is a very rare species: The body is about seven or eight inches long, including the head, and is covered with long beautiful silvery white hair; the tail is about one half longer than the body, and is clothed with glossy brown hair approaching to black; the face, muzzle, and ears, are naked, and of a lively vermilion colour, as if painted; the muzzle is short, and the partition between the nostrils is thinner than in the other Sagoinus; the eyes are distant, and the ears large; the claws on the thumbs, fingers, and toes, are crooked, narrow, and pointed, but the great toes have flat rounded nails.

84

6. Tamarin.—48. *S. Sagoinus midas*. 27.

Is beardless; the upper lip is cleft; the ears are naked and squared; the claws are sharp and narrow; and the feet are of a saffron colour. Mus. Ad. Frid. 2. p. 4.

Very small, black, lion-headed cercopithecus, with ears like the elephant. Barrere Fr. equin. 151.—Very small, black cercopithecus, with saffron coloured paws. Edw. av. 196. t. 196.—Black cercopithecus with saffron coloured feet. Gronov. zooph. 20.—Cai. Raj. quad. 155.—Tamarin. Sm. Buff. viii. 203. pl. cclxxxiv.—Great-eared monkey. Penn. hift. of quad. n. 123.

Inhabits Surinam.—The body is of a black colour, and about the size of a squirrel; the tail is black, and twice the length of the body; the ears are large, naked, and blunt; the hands and feet are

are of a saffron or orange colour; the claws on the thumbs, fingers, and toes, are narrow and sharp pointed, and those on the great toes are flat and rounded. This is a beautiful, lively animal, and easily tamed, but too delicate for the climate of Europe; its body and limbs are finely proportioned; it walks on four feet, and the body and head together are only seven or eight inches long, with the tail of double that length: The head, body, and tail, are covered with soft, blackish-brown hair; and the hands and feet with short orange coloured hair; the face is of a dusky flesh colour, having the upper lip divided, nearly like that of a hare; the ears are square, large, naked, and of the same colour with the face.

III. MAUCAUCO.—3. *LEMUR*. 3.

Has four cutting teeth in the upper jaw, with a space between the two foremost and the other two; in the lower jaw are six, which are longer than those in the upper; they are extended forwards, compressed, parallel, and close set; on each side in both jaws there are single tusks, which stand close to the other teeth; there are several grinders, which are somewhat knobbed, and the foremost of these are longer and sharper pointed than the others. The feet are formed like hands.

This genus forms a kind of link between the race of Apes and the ferocious quadrupeds, having the flat nails of the former, combined with the crooked claws of the latter; and, except in the hand-like use of the paws, having no resemblance to mankind. All the species of this genus, except one which is very little known, inhabit the torrid regions of Asia and Africa.

85

1. Loris.—1. *Lemur tardigradus*. 1.

Has no tail, and is of a pale rusty brown or tawny colour. Schreber, i. 134. tab. xxxviii.

Ape, simia, having a long, crooked, sharp, claw on the toe of each hind paw next the great toe. Briff. quad. 190. n. 3.—Dog-headed ape, having a long, sharp, crooked, claw on each index, or fore finger, and toe. Briff. quad. 191. n. 2.—Little dog-headed animal, named Sloth in Ceylon. Seba Mus. i. 55. t. 35.—Ceylon cercopithecus, or, as it is called, Larger Sloth. Seba Mus. i. 75. t. 47. f. 1.—Loris. Sm. Buff. vii. 231. pl. ccxxx. Penn. hist. of quad. n. 129.

Inhabits the island of Ceylon.—An active animal, having a most acute sense of hearing: It is about the size of a squirrel; of a pale brown or rusty colour, with a whitish throat, and having a white line on the head pointing to the space between the eyes; the face is covered with hair; the ears are large, thin, rounded, and garnished on the inside with two auricles; the palms of the hands and soles of the feet are naked; the nails are rounded, except on the index of the hind paw, which has a sharp pointed

pointed claw; it has no tail; there are two paps on the breast, and two on the upper part of the belly: It is a monogamous animal, or lives in societies consisting of only one male and one female, taking a mutual charge of the young ones: It is small, and remarkable for the elegance of its figure, and the singularity of its conformation; having nine lumbar vertebrae, whilst all other quadrupeds have only five, six, or seven; the head is entirely round, and the muzzle almost perpendicular to this sphere; the eyes are very large, and are placed very near each other; the ears are large, rounded, and garnished with three auricles on the inside, so as to resemble a turbinated shell: The most remarkable circumstance, which is perhaps peculiar to this animal, is, that the female clitoris is perforated by the urethra, so that this organ has a perfect resemblance, both in figure and size, to the penis of the male; the hair on the body is short, and very soft, of a tawny colour on the upper parts, and whitish on the under parts; the limbs are very long and slender, and the thumbs and great toes are remarkably distinct, and much separated from the other toes. Though named a Sloth by some writers, it is remarkably agile in climbing trees, and has the actions of an Ape.

2. Taillefs Maucauco.—*Lemur ecaudatus*.

Has no tail: A dark rusty line, from the rump, runs along the middle of the back to the fore-head, where it becomes forked; and a blackish circle furrounds the orbits. Penn. hist. of quad. n. 128. pl. xxvi. Lever. Mus.

Lemur ecaudatus, Taillefs Lemur. Nat. Misc. pl. xxix.

Inhabits Ceylon and Bengal.—The head is small, round, and broad at the fore-head; the muzzle pointed; the orbits light coloured, and furrounded with a black circle, and the space between them white; the ears are small; the fingers and toes naked, having flat rounded nails, except the inner toes of the hind paws, next the great toes, which have long, crooked, sharp claws: The length of the body and head is about sixteen inches; and the whole body is covered with short, soft, silky, ash coloured and reddish fur. It lives in the woods, is fond of fruits, eggs, and small birds; is very inactive, creeping slowly on the ground; very tenacious of its hold, and emits a plaintive cry.—There is some confusion among authors in their description of the two last animals; for this ought to be the *Lemur tardigradus* of Linnæus and others, at least in its manners: This edition is guided, however, in referring the Loris to that species by the high authority of the Count de Buffon.

3. Indri.—2. *Lemur Indri*. 9.

Has no tail, and is of a black colour. Sonneret, It. ii. 142. t. 88.

Inhabits Madagascar.—This animal is about three feet and a half high; is easily tamed, when caught young, and is employed in hunting by the natives: Its voice is plaintive, like that of an infant; it has eight tusks, or canine teeth, in each jaw, only two cutting, or fore-teeth, in the upper jaw, and four, close set, in the lower; all the feet have five toes, furnished with flattened sharp nails, and the great toes are very large; the hair is silky and thick set, white and curled on the rump, grey on the face and between the hind legs, and black over all the rest of the body and limbs: The rudiments of a tail are sensible to the touch, but not visible through the fur.

88

4. Potto.—3. *Lemur Potto*. 6.

Has a tail: Is of a pale rusty brown colour, with the tail of the same colour with the body.
Bosman's Guinea, ii. 30. f. 4.

Inhabits Guinea.—This animal is very like the former species, except in colour, and by having a tail.

89

5. Mongous.—4. *Lemur Mongoz*. 2.

Of a grey colour, and having a tail of the same colour with the body. Schreber, I. 132. tab. xxxix. B.

Mongooz. Edw. av. v. 12. t. 216. Walch, Natur. viii. 26.—Woolly maucauco. Penn. hist. of quad. n. 130.—Mongouz. Sm. Buff. vii. 226. pl. ccxxviii.

The body is grey, or rather brown, on the upper parts, and white on the lower, having a black circle round the orbits: The hands are of a pale ash colour.

90

β. Black-faced Mongous.—2. β. *Lemur Mongoz maurus*.

The body is grey or brown, and the face and hands are black. Edw. av. v. 13.

91

γ. Black Mongous.—2. γ. *Lemur Mongoz negro*.

The body is black, or dark grey, with a black spot near each eye.

Brown woolly squirrel-ape, Simia-sciurus, from the island of Johanna; perhaps the Indian ceropithecus of Ray, called Bugee. Petiv. gaz. 26. t. 17. f. 5.

92

δ. White-handed Mongous.—2. δ. *Lemur Mongoz albipes*.

The body is brown, and the muzzle and hands are white.

Brown Profimia, or ape-like animal, having the muzzle, throat, and paws, white. Briff. quad. 156. n. 2.

93

ε. Brown Mongous.—2. ε. *Lemur Mongoz fuscus*.

The whole body is of a uniform brown colour.

Simius zambus. Nieremb. hist. nat. 176.—Brown profimia. Briff. quad. 156. n. 1.—Variety of the mongous, of the size of a cat, and totally brown. Sm. Buff. vii. p. 226.

94

ζ. Grey Mongous.—2. ζ. *Lemur Mongoz cinereus*.

The body is grey, with a black face, and tawny yellow hands. Schreber, i. 138. tab. xxxix. A.

Profimia, of a brown colour, mixed with red; having a black face, and tawny yellow paws. Briff. quad. 157. n. 3.

The Mongous inhabits the islands of Madagascar and Johanna, and the neighbouring countries of Africa.—The several varieties of this species, which are enumerated from Dr Gmelin's edition of the *Systema Naturae*, seem all to resemble each other very much, and to differ chiefly in size and colour from each other. In all of them the toes next the great toes, on the hind paws, are furnished with long narrow sharp claws.

The variety which the Count de Buffon describes, enumerated above under the name of Brown Mongous, had long silky hair, rather short, and somewhat curled, and entirely brown; the eyes are yellow, the muzzle black, and the ears short; the testicles are very large, and the tongue very rough: It was extremely brisk in its movements, petulant, very nasty, and fond of fruits, sugar, and sweet-meats; while in confinement, it eat off four or five joints from its own tail; it emitted almost perpetually a low grunting voice, and, when tired of solitude, croaked very loudly like a frog: The tail is very long and bushy, carried erect, and curved somewhat in the manner of the squirrels. The one represented in pl. ccxxviii. of the Count de Buffon's work, seems to have a whitish or grey throat; the muzzle, from between the eyes to the point, is long, black, and narrow, with a number of long hairs over the eyes, and on each side of the mouth.

6. Vari.—5. *Lemur Macaco*. 3.

Has long hair round the sides of the neck and throat, like a ruff; and a long tail.

Ruffed maucauco. Penn. hist. of quad. n. 132.—Vari. Sm. Buff. vii. 228. pl. ccxxix.

95

α. Black Vari.—3. α. *L. Macaco niger*.

The whole body is of a uniform black colour. Schreber, i. 142. tab. xl. A.

Black maucauco. Edw. av. v. t. 217.

96

β. Brown Vari.—3. β. *L. Macaco fuscus*.

The whole body is uniformly brown.

Brown lemur, having a bushy tail. Gronov. zooph. 22.

97

γ. White Vari.—3. γ. *L. Macaco albus*.

Of a uniformly white colour.

Antavarre, entirely white. Cauche, Madagasc. 127.

98

δ. Pied Vari.—3. δ. *L. Macaco variegatus*.

The body is mixed with black and white in patches. Schreber, i. 142. tab. xl. B.

Vericassi, or Varicossi. Flacourt, voy. 153.—Vari. Sm. Buff. vii. pl. ccxxix.

The several varieties of this species inhabit the same countries with the Mongous.—The variety, represented in the plate of the Count de Buffon's Natural History, is mostly white in the body; all the paws, the fore-head, the tail, the insides of the thighs, a large blotch on each shoulder, and a long narrow patch on the loin before the upper part of the thigh, are black; the nail on the inner toe of

the

the foot is somewhat narrow and pointed, like a claw. The vari is fond of sun-shine, yet always chooses to sleep in a dark place, and preserves its nest very clean. In confinement, it refuses to feed on eggs, flesh, or fish; and, when eating, growls, with a voice like that of a lion: In a wild state it is very fierce, and even dangerous, but when tamed is very gentle and good natured; it has a prodigiously strong voice, like the roaring of a lion, so that two of them in the woods, by their noise, may be mistaken for a hundred; this seems owing to a singular enlargement of the wind-pipe, just before it splits into two branches to enter the lungs; the muzzle is long and thick, the ears very short, and fringed with long flowing hairs, which join the collar, or hairy ruff, on the neck, cheeks, and throat; the eyes are of a deep orange colour, almost red.

99

7. Ring-tailed Maucauco.—6. *Lemur Catta*. 4.

Has a long, erectly arched, bushy tail, annulated with alternate bars of black and white.

Ash-coloured Profimia, having the tail surrounded with alternate rings of black and white. Briff. quad. 222. Mus. Ad. Frid. ii. 5. Schreber, i. 143. tab. xli. Herman, naturf. xv. 159.—Madagascar squirrel-ape, fimia-sciurus, or maucauco. Edw. av. iv. 197. t. 197.—Maucauco. Sm. Buff. vii. 225. pl. ccxxvii.—Ring-tail maucauco. Penn. hist. of quad. n. 131.

Inhabits the islands of Madagascar, Mauritius, and Johanna, and the neighbouring continent of Africa.—A gentle animal, living in flocks, which climbs trees, by means of its four paws, like the Apes: It lives on fruits, pot-herbs, and roots, holding its food with the hands; is rather slow in its motions; purrs like a cat when pleased and at rest: Dr Gmelin adds, that the individual in his possession had a singular structure of the eyes, which he is uncertain whether to consider as natural or accidental; the pupil of the right eye was contracted into a perpendicular slit, like that of a cat, while the left pupil was circular and wide *. All the nails, both of the feet and hands, are flat and rounded, without the sharp claw on the index. This is a beautiful animal, of an agreeable aspect, an elegant figure, and gentle manners; having a great resemblance to the Monkeys, but without any of their malicious and mischievous dispositions; it has very large eyes, very long hind legs, and a large handsome tail, which is always erect, always waving about, and is ornamented with thirty alternate rings of black and white: When at liberty, it lives in considerable societies; is very silent, uttering only a short acute cry when surprised or irritated; it sleeps in a sitting posture, with the muzzle resting on the breast; the body is not thicker than a cat, but is considerably longer; the hair, though soft, stands erect; the male parts are very small and concealed. This, and the two former species, have an aukward, oblique gait, but leap well, like all the handed animals.

100

8. Murine Maucauco.—7. *Lemur murinus*. 7.

Is of an ash colour, with a rusty brown tail. Miller, var. subj. of nat. hist. tab. xiii. A. B.

Inhabits the island of Madagascar.—All the toes and fingers have flat rounded nails.

101

9. American Maucauco.—8. *Lemur bicolor*. 8.

Has a tail: The upper parts of the body are of a blackish grey, and the under of a dirty white colour; with a heart shaped dirty white spot on the fore-head. Miller, var. subj. tab. xxxii. A.

Inhabits

* Probably the left eye was blind?—T.

Inhabits South America.—The head resembles that of a bull-dog; and all the toes and fingers have narrow sharp claws.

102

10. Curly Maucauco.—9. *Lemur laniger*. 10.

Has a tail: Is of a reddish-yellow brick-duft colour on the upper parts of the body, and white on the under parts; and the tail is of a uniform tawny red.

Macquis a bourres. Sonneret, It. ii. 142. t. 89.

Inhabits Madagascar.—The body and head are about twenty-one inches long, and the tail nine; the hair is very soft, and curled; the loins are of a reddish tawny colour; the face black; the ears are small; the eyes large, and of a greenish grey colour: It has only two fore-teeth in the upper, and four in the lower jaw; the paws have all five toes, of which the thumbs and great toes have flat rounded nails, and all the rest pointed claws.

103

11. Podje.—*Lemur Podje*.

Has remarkably long and slender hind legs, especially from the heel to the toes; and a long slender tail.

Tarfier. Sm. Buff. vii. 171. pl. ccxvi. Penn. hist. of quad. n. 133.

Inhabits the remotest parts of India, especially in the isle of Amboina.—Has a long pointed visage, with a slender muzzle, which is two-lobed at the end; the eyes are large and prominent; the ears erect, broad, naked, semitransparent and long, having a tuft of long hair between them on the top of the head; on each side of the nose, and on the upper eye-brows, there are long hairs; it has only two fore-teeth, and two tusks, in each jaw; there is a distinct thumb, and four slender toes, on each foot; the great toes are broad, and furnished with flat rounded nails, but all the other toes and fingers have short sharp claws; the penis is pendulous, and the scrotum very large; the length, from muzzle to rump, is six inches; thence to the ground, when standing, eleven inches and a half; the tail is nine and a half inches long; the hair on the body is long, soft, and woolly; the head is ash-coloured, the rest of the body tawny, mixed with ash colour; the hair on the legs is short, white, and thin; the tail is almost naked and scaly for the greater part of its length, and is tufted at the end. This animal is described by Mr Pennant from two specimens in the museum of Dr Hunter, and in the Leverian Museum.

104

12. Prehenfile Maucauco.—*Lemur prehenfiliis*.

Has a long prehenfile tail.

Little maucauco. Penn. hist. of quad. n. 134. Brown's illust. of zool. 108. tab. xlv.—Madagascar rat. Sm. Buff. viii. 284. pl. ccxcv.

Inhabits the island of Madagascar.—Is rather less than a common black rat; the head is rounded, with a sharp muzzle, and long whiskers; the ears are large, roundish, naked, and thin; the eyes are large and full; the toes are long and unequal, with round ends, and short rounded nails, and a sharp long claw on the inner toe of the hind paw; the tail is hairy, as long as the body, and prehenfile; the upper part of the body is cinereous, the lower parts are white, and the space round the eyes is dark

dark coloured. It is a lively animal, which rolls itself up when asleep, and carries its food in its hands; it bites severely, has a weak voice, and cannot be tamed: It is supposed to live in the palm trees, and to feed on fruits. Perhaps the same with the Murine Maucauco, sp. 8.?—T.

105

13. Colugo.—10. *Lemur volans*. 5.

Has a membrane fitted for flying, which is extended from the fore-legs, along the sides, all round the body. Pallas, *Aët. Petrop.* 1780, p. 1. Schreber, i. 146. tab. xliii.

Cato-fimius volans, of Camell. *Petiv. gaz.* 14. t. 9. f. 8. *Phil. Transf.* 277. n. 1065.—Wonderful bat. *Bont. Jav.* 68. t. 69.—Flying cat, of the Isle of Ternate. *Seb. Mus.* i. 93. t. 58. f. 2. 3.—Flying maucauco. *Penn. hist. of quad.* n. 155. pl. xxvii.—*Leverian Mus.*

Inhabits Guzurat, and the Philippine and Molucca islands. —This singular animal is gregarious, and goes abroad only in the evening and during night, living on fruits: It has a membrane fitted for flying, similar to that of the flying squirrel, which extends on each side, from the head, to the fore-legs, from these along the sides to the hind legs, and thence to the extremity of the tail; the toes, on all the paws, have sharp claws: The female has two paps situated on the breast, which circumstance renders it probable that this little animal should be arranged with the *Maucaucos*, or the general race of Apes; but the above description, and generic character, must remain imperfect until a more recent specimen be brought to Europe. According to Mr Pennant, it has a long head, a little mouth, and small teeth, with small, round, and membranous ears; the body, and outside of the membrane, are covered with soft, hoary, or black and ash-coloured, hairs; the inner side of the skin is naked, with veins and fibres dispersed over it; the lower sides of the legs are covered with soft yellow down; each paw has five toes, furnished with slender, crooked, and very sharp, claws, by which it strongly adheres to any thing: It is about three feet long, from nose to rump, and nearly the same breadth when expanded; and the tail is slender, hairy, and about a foot in length.

IV. BAT.—4. *VESPERTILIO*. 4.

All the teeth are erect, sharp pointed, and standing contiguous to each other; the fore-feet are divided into very long, slender, extended toes, which are connected together by a membrane, which likewise furrounds the body, and by means of which these animals are enabled to fly.

The animals of this genus, as its Latin name implies *, never go abroad but during the night or evening, when they fly about, in search of food, by means of the expanse membrane mentioned in the above generic character. They have all small, obscure, covered eyes, ill formed nostrils, and large mouths,

* ————— *Lucemque perosaæ,*

Noctæ volant, seraquæ tenent a vespere nomen.—*Ovid. Met.* iv. 12.

mouths, extending almost from ear to ear: Their motion in flying is a kind of desultory fluttering; during which they quicken, relax, or direct their flight, in a very bungling and imperfect manner; catching, however, as they pass, flies, gnats, and particularly moths, which last are their principal food: Their pectoral muscles are much stronger, and more fleshy, than in other animals of this class, being similar to those of birds, for the purpose of flying; and they crawl awkwardly on the ground, from which they rise to flight with great difficulty: The penis is loose and pendulous, which is peculiar to mankind, monkeys, and this genus. In cold countries they remain in a torpid state during winter; being gathered together in dark holes and caverns, or vaults, where they either stick close to the walls, retire into holes, or suspend themselves by the hind legs, some of them wrapping up their bodies in their membranous wings. As the species of this genus are numerous, and more especially as the teeth in the various species are considerably different in their numbers and arrangement, Dr Gmelin has, with great propriety, subdivided the Linnæan genus into subgenera, the distinctions of which are founded on the number of fore-teeth in the two jaws.—T.

A. Having four fore-teeth in each jaw.

i. Vampire.—i. *Vespertilio Vampyrus*. i.

Has no tail: The nose is simple, like the muzzle of common quadrupeds; and the membrane is divided, between the hind legs, quite to the rump.

Ternate bat. Penn. hist. of quad. 393.

This species, of which there are several varieties described below, inhabits the west of Africa, the south of Asia, and the islands in the Indian Ocean and South Seas.—The fore-teeth are rather blunt; it has only one tusk on each side in the upper jaw, which is furrowed by the action of the lower teeth; there are two tusks on each side in the lower jaw, having a small obtuse kind of incisive teeth placed between them; and there are several bluntish grinders on each side in both jaws. The nostrils are scarcely divided. The body is about the size of a squirrel, and varies from five to nine inches in length. The first toe of the fore paws is separate from the membrane, and is furnished with a claw, but the second is enveloped in the membrane. The hind legs have several toes, and the heels send off a taper cartilaginous process which is united to the membrane. The eyes have each a membrana nictitans, placed at the inner corner. The uterus is simple.

α. Rouffet.—i. α. *Vesp. Vampirus niger*.

Is mostly of a black colour. Schreber, i. 153. tab. xlv.

Black Pteropus, or wing-footed animal, having short, and somewhat sharp, ears. Briss. quad. 153.—*Vespertilio ingens*. Clus. exot. 94. Bont. Jav. 68. t. 69.—Flying-dog, Chien volant, from Ternate. Daubenton, Act. Paris. 1759, p. 384. Seb. Mus. i. 91. t. 57. f. 1. 2.—Rouffette, or Ternate bat. Sm. Buff. v. 281. pl. cxxxiv. Penn. hist. of quad. p. 548.

This species, or variety, is of a dark reddish-brown colour; is nine inches long from muzzle to rump; and the wings are three feet, from tip to tip, when extended; it feeds on bananas, peaches, and other fruits; is not gregarious, yet is found in great numbers on the same tree, by accidentally meeting in quest of food: Often flies by day, which is different from the custom of other bats, and sometimes

sometimes to great heights, and to a considerable distance. It has large tusks, a sharp black muzzle, and large naked ears; the tongue is pointed, and garnished with sharp reversed prickles. This species varies in colour, some being dusky, and others of a reddish brown; and some individuals are found more than a foot long.

107

β. Rouget.—1. β. *Vesp. Vampyrus subniger*.

The body is of a brownish black colour.

Dark-brown Pteropus, having short ears, somewhat pointed, and the upper part of the neck of a red colour. Briff. quad. 154.—Bat from the Isle of Sabuda in New Guinea. Dampier, voy. v. 81. t. 5.—Great bat. Edw. av. iv. 180. t. 180.—Rouffette. Daubenton, Act. Parif. 1759, p. 385.—Rougette. Sm. Buff. v. 281. pl. cxxxv. Penn. hist. of quad. p. 549.

This variety is of a cinereous brown colour, having a half collar on the upper part of its neck of a lively red mixed with orange; it resembles the former very much in shape, but is much less, being only about five and a half inches long, and about two feet in extent. This species never flies abroad in the day, and lives in societies, of more than four hundred, in the hollow trunks of large decaying trees; among which vast flock, it is generally believed, there is never more than one male. This animal becomes very fat, and is reckoned good and wholesome food.

108

γ. Lesser Vampire.—*Vesp. Vampyrus helvus*.

The body is of a pale yellow, or straw colour. Penn. hist. of quad. n. 393. β. Leverian. Mus.

This variety has a head made like that of a greyhound, with large teeth; the ears are long, broad, and naked; and the whole body is covered with short, straw-coloured hair. It is about eight inches and a half long, and the wings are two feet two inches in extent; being very much like the two former animals, but its place and history are unknown.

109

2. Spectre.—2. *Vespertilio Spectrum*. 2.

Has no tail: The muzzle has a funnel shaped membrane, bent inwards at the end. Schreber, i. 159. tab. xlv.

Pteropus, with long open ears, and having a membrane, bent inwards at its fore part, joined to the muzzle. Briff. quad. 154.—Flying-dog, *Canis volans*, with very large ears, from New Spain. Seba, Mus. i. 92. t. 58. f. 1.—Horned bat, or *Andira-guacu*. Piso, Brasil. 290.—Vampire. Sm. Buff. v. p. 283.—Spectre. Penn. hist. of quad. n. 394.

Inhabits South America.—The fore part of the nostrils resembles a funnel, turning upwards and inwards, and terminated by a membrane, shaped like a leaf; the ears are oval, having a narrow pointed flap on the inside, as long as the external ear; the tusks are very large and solitary; the anterior grinders are blunt, and shorter than the rest; the wings are subtended on four toes, of which the first and second are connected together; and the fore legs have each a detached thumb, armed with a hooked claw; the hind feet have each five equal toes, which are provided with hooked claws; the rump sends off, on each side, a narrow tapering tendon, along the margin of the membrane between the hind legs; but these do not reach so far as to meet. This animal is extremely ugly and hideous; the head is ill

shaped, with large, open, very erect ears; and the nose is much deformed. It is said to open a vein with great dexterity in horses, mules, and even men, while they sleep, and to suck the blood, so as to debilitate, or even to kill them, fanning the air all the time with its wings. It is about the size of a pigeon, according to Seba's figure, the body and head being seven and a half inches long, and the extent of the wings two feet two inches.

110

3. Spear-nosed Bat.—3. *Vespertilio perspicillatus*. 3.

Has no tail: The nose has a flat, pointed, leaf-like membrane at its extremity.

Mus. Ad. Frid. 7. Schreber, i. 160. tab. xlv. A.

Common American bat. Seba, Mus. i. 90. t. 55. f. 2.

Inhabits South America.—Has five toes on the fore feet, which are spread out in the membrane.

111

4. Heart-nosed Bat.—4. *Vespertilio spasma*. 4.

Has no tail: The nasal membrane is heart shaped. Schreber, i. 158. tab. xlviii.

Tailless bat, having a foliated nose, and very large ears with flaps in the inside. Gronov. zooph. i. 7. n. 27.—Reddish bat, having the ears and nose double. Briff. quad. 161. n. 4.—Glis volans, from Ternate. Seb. Mus. i. 90. t. 56. f. 1.—Cordated bat. Penn. hist. of quad. n. 397.

Inhabits Ceylon and the Molucca islands.—The fore feet have each five toes spread out in the membrane; the colour of the body is a very pale reddish, and that of the face a little darker; the hind legs are connected by the membrane.

112

5. Javelin Bat.—5. *Vespertilio hastatus*. 7.

Has no tail: The nasal membrane resembles a leaf of trefoil. Schreber, i. 161. tab. xlv. B.

Fer de lance, or Javelin bat. Sm. Buff. vii. 235. pl. ccxxxi. Penn. hist. of quad. n. 395.

Inhabits South America.—Is of a dark brown or black colour, about the size of a common bat; and very much resembles the spear-nosed bat.

113

6. Leaf-nosed Bat.—6. *Vespertilio forcinus*. 8.

Has no tail: The muzzle is much lengthened, and the nasal membrane is of a heart shape. Pallas, specileg. zool. iii. 24. t. iii. Schreber, i. 161. tab. xlvii.

Short-tailed bat, having a sharp muzzle surmounted with a leaf-like membrane, and rounded, almost simple ears. Gronov. zooph. 7. n. 26.—Common American bat. Edw. av. v. 201. t. 201.—Leaf bat. Sm. Buff. vii. 235. pl. ccxxxiii. Penn. hist. of quad. n. 396.

Inhabits South America, Jamaica, Surinam, and Senegal.—Has a very short tail; and the tongue is furnished with sharp pointed papillae: It is about the size of a common bat; the ears are small and rounded; the hind legs are connected by the membrane; the fur is of a mouse colour, tinged

tinged with red; the tongue is very long, and seems adapted for sucking blood like the Vampire and Spectre.

114

7. Hare-lip Bat.—7. *Vespertilio leporinus*. 9.

Has a tail; and the upper lip is divided. Syft. nat. ed. x. p. 32. n. 4. Schreber, i. 162. tab. lx.

American night-bat, Noctilio Americana, having a warty under lip. Syft. nat. ed. xii. p. 88. n. 1.—Dusky-red American bat. Briff. quad. 227.—American bat. Seba, Mus. i. 89. t. 55.—Bat from the Valley of Ylo. Feuillé, obs. i. p. 623.—Peruvian bat. Penn. hist. of quad. n. 398.

Inhabits South America.—This species is about the size of a rat, and lives on fruits; it is of an iron-grey colour; the head is like that of a pug-dog, with large pointed ears; the tail is inclosed in the membrane, which is also supported by two long cartilaginous ligaments; and the wings extend two feet two inches.

115

8. Chop-fallen Bat.—*Vespertilio labialis*.

Has a short tail, and hanging lips; the nose is two-lobbed, and the upper lip divided.

Variety β . of the Peruvian bat. Penn. hist. of quad. n. 398. β .

Inhabits Peru, and the Musquito shore.—The head is large, with hanging lips, like those of a mastiff; the nose is two-lobbed; the upper lip is divided, and the ears are straight, long, and narrow; the tail is short, having a few of its extreme joints standing out from the membrane, which includes its lower part, and projects far beyond it, in an angular form, ending in a point; the colour of the head and back is brown, of the belly ash coloured, and of the membrane, which is very thin, dusky: It is about five inches long, and twenty inches in extent*.

4. B. Having four fore-teeth in the upper, and six in the lower jaw.

116

9. Long-eared Bat.—8. *Vespertilio auritus*. 5.

Has a tail: The lips and muzzle are simple; but the ears are double, and larger than the head. Faun. Suec. 3.

Great-eared bat. Frisch. av. t. 103. Edw. av. v. t. 201. f. 3.—Bat, having a tail, a simple nose, and very large ears without any pendicle. Gronov. zoop. 23.—Mouffe-coloured bat, with double ears. Briff. quad. 160.—Bat, with quadruple ears. Jonst. av. 34. t. 20.—Long-eared bat, or Oreillar. Sm. Buff. iv. 2d spec. p. 322. pl. xc. fig. 2.—Long-eared bat. Penn. hist. of quad. n. 412. BRIT. ZOOL. i. 129. Lev. Mus.

Inhabits Europe, and is found in Britain.—This is much smaller than the following species, or common Bat, than which it is perhaps more numerous; its wings are shorter, its muzzle smaller and sharper, and its ears are of an immoderate size.

10.

* By length is meant the measure from the tip of the nose to the rump; and by extent the measure between the extremities of the wings when stretched out.—T.

10. Common Bat.—9. *Vespertilio murinus*. 6.

Has a tail: The lips and nose are simple; and the ears are smaller than the head.

Faun. Succ. 2.

Mouſe-coloured bat, with ſimple ears. Briff. quad. 158. n. 1.—Bat. Aldrov. ornith. 575. f. p. 576.—Small eared bat. Friſch. av. t. 102. Edw. av. iv. t. 201. f. 2.—Chauve ſouris, or bat. Sm. Buff. iv. 380. 1ſt ſpec. p. 322. pl. lxxxix. fig. 1. and 2.—Common bat. Penn. hiſt. of quad. n. 411. BRIT. ZOOL. i. n. 40.—Its anatomy. S. N. C. d. 2. a. 1. obf. 48.

Inhabits Europe, and is found in Britain.—This animal flies only during the night, living chiefly on moths: When it lights on the ground it is unable to riſe again till it has crawled to ſome height: It hybernates, or remains torpid, as if dead, during winter, revives in the beginning of the ſpring, and comes abroad in the grey, or duſk, of the evening. This ſpecies is two inches and a half long, when full grown, and about nine inches in extent; the fur is of a mouſe colour, tinged with red-diſh; it generally ſkims near the ground, with an uneven jerking flight; and often, ſeeking for gnats and other aquatic inſects, flies cloſe by the ſurface of water. It breeds in the ſummer ſeaſon, and is preyed on by owls.

The European ſpecies of bat paſs the winter in a torpid ſtate, without food or motion, ſuſpended in ſome dark place, in old ruinous houſes, or caverns, or in the hollows of decayed trees: This is called *hybernation*; and, during this ſtate, moſt of the animal functions are ſuſpended, or at leaſt ſo greatly diminiſhed in their activity as to be ſcarcely perceptible: The action of the heart and arteries becomes ſo exceedingly languid, that the pulſe can ſcarcely be felt, and the natural number of ſtrokes, during any given time, is vaſtly leſſened; if reſpiration be at all carried on, it is ſo very ſlow as ſcarcely to be diſcoverable; the natural temperature, or animal heat, likewiſe gets greatly below the uſual ſtandard; digeſtion becomes altogether ſuſpended, for, during hybernation, no food whatever is taken into the ſtomach; all the excretions, except, perhaps, the inſenſible perſpiration, and that by the lungs, both of them in a much lower degree than uſual, are at a ſtand; and none of the functions ſeem to go on excepting a very ſlow degree of nutrition, and interchange of old for new matter in the depository cells of the body: That this laſt actually takes place is evident, becauſe all hybernating animals enter into the torpid ſtate extremely fat, and revive again exceſſively emaciated; and from this it appears that the oil, in the fatty follicles of the cellular membrane, is gradually taken up by the abſorbent veſſels into the languid circulation, to ſupply the proportionally gradual waſte, occaſioned by the more than half ſuſpended action of the emunctories.

Bats are very voracious, if proper food is to be had; and, though moths and other inſects be their natural and common food, yet if fleſh, whether raw or roasted, freſh or corrupted, comes in their way, they devour it with greedineſs. In this country they appear abroad early in ſpring, flying about only in the evenings; but are ſometimes rouſed from their torpidity by a warm day or two during winter, and will then venture out in queſt of food, but recommence their ſtate of hybernation whenever the cold returns: They retire at the end of ſummer into caves, ruined houſes, or the roofs and eaves of houſes, where they remain ſuſpended by the hind legs, and enveloped in their wings, generally in large numbers. Bats may be caught by means of the flower cups of bur-dock, whirled and thrown up in the way of their flight; they are attracted by the whiteness, and the hooks of the bur, ſticking to their membranous wings, make them fall to the ground.

118

11. Noctule.—10. *Vespertilio noctula*. 10.

Has a tail: The nose and lips are simple; the ears are oval, and provided with a very small valve, or secondary ear. Schreber, i. 166. tab. lii.

Bat. Gefner, av. 694. & pl. Aldrov. ornith. 575. f. p. 576.—Noctule. Sm. Buff. iv. 317. 3d spec. p. 322. pl. xci. fig. 1. Penn. hist. of quad. n. 407.—Great bat. BRIT. ZOOL. i. 128. and D^o. illust. tab. ciii.

Inhabits France, Germany, Britain, and Russia.—The nose is slightly two-lobed; the ears are small and rounded; the chin has a small wart; the length of the body is near three inches, the extent of the wings about thirteen, and the tail one inch seven tenths long. This species has been found in great numbers at Cambridge. It never skims along the ground, but flies high in search of food; is sometimes larger than the above measures: Like the former it breeds in summer.

119

12. Serotine.—11. *Vespertilio Serotinus*. 11.

Has a tail: Is of a yellowish brown colour, having short ears with thickened edges. Schreber, i. 167. pl. liii.

Serotine. Sm. Buff. iv. 317. 4th spec. p. 323. pl. xci. fig. 2. Penn. hist. of quad. n. 408.

Inhabits France, Germany, and Siberia, beyond Lake Baikal.—This species is about two inches and a half long: The ears are short, and broad at the base; the body is of a brown colour, mixed with rusty yellow, the belly paler, and the wings are blackish.

120

13. Pipistrelle.—12. *Vespertilio Pipistrellus*. 12.

Has a tail: Is of a brownish-black colour; having a sunk fore-head, and oval, thick-edged ears, scarcely so long as the head. Schreber, i. 167. tab. liv.

Pipistrelle. Sm. Buff. iv. 317. 5th spec. p. 323. pl. xcii. fig. 2. Penn. hist. of quad. n. 409.

Inhabits France, more rarely in Germany, and is common in the mountainous parts of Russia and Siberia.—This is the smallest and least ugly of all the bats: The upper lip is turgid, the eyes are small and much sunk, and the fore-head is covered with longish hair. It is not above an inch and a quarter in length, and six inches and a half in extent: The upper parts of the body are of a very dark yellowish brown, and the lower parts of a dusky brown or black colour, with yellow lips.

121

14. Barbastelle.—13. *Vespertilio Barbastellus*. 13.

Has a tail: The cheeks are tumid and hairy; and the ears are large and angular at their lower parts. Schreber, i. 168. tab. lv.

Barbastelle. Sm. Buff. iv. 317. 6th spec. p. 323. pl. xcii. fig. 1. Penn. hist. of quad. n. 410.

Inhabits Burgundy in France.—This species appears to have large whiskers, owing to the turgidness of the cheeks, which form a kind of pudding, on each side, above the lips: The muzzle is very short, the nose much flattened, and the eyes are placed near the ears; the ears are very broad, so that

that their lower edges touch each other and conceal the face; the upper part of the body is of a dusky brown, and the lower of a mixed ash and brown colour: It is about two inches long, and ten and a half in extent.

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15. Bearded Bat.—14. *Vespertilio hispidus*. 14.

Has a tail, and is covered with a rough fur: The nostrils are open, all up the nose, like a gutter; and the ears are long, erect, and narrow. Schreber, i. 169. tab. lvi.

Campagnol volant. Daubenton, act. Parif. 1759. p. 388.—Bearded bat. Sm. Buff. v. 305. pl. cxxxviii. fig. 1. Penn. hist. of quad. n. 402.

Inhabits Africa, near the river Senegal.—This species has a longish beard under the chin: The nose has hardly any cartilage, and the nostrils are placed on each side in a small open gutter, which reaches the whole length of the nose, and is terminated, at the lower part of its external edge, by a small button; the external edges of this gutter unite above the upper lip, and form a large furrow, which extends to the fore-head, and ends in a deep naked pit edged with long hair: The hair is longish and rough; on the top and hind parts of the head, on the neck, shoulders, back, and rump, of a reddish brown; the rest is whitish, tinged with yellow; the ears and membranes have different shades of blackish and reddish brown; the tail is inclosed, to its tip, in the membrane; the claws are yellowish: The length of the body is about one inch and a half, and the extent of the wings seven inches.

C. Having four fore teeth in the upper, and eight in the lower jaw.

123

16. Striped bat.—15. *Vespertilio pictus*. 15.

Has a tail: The muzzle is simple; the ears are funnel shaped, and provided with a little appendage on the inside. Gronov. zooph. 7. n. 25. Pallas specil. iii. 7. Schreber, i. 170. tab. xlix.

Ternate bat. Seba, Mus. i. 91. t. 56. f. 2. 3.—Muscardin volant. Daubenton, Act. Parif. 1759, p. 388.—Striped bat. Sm. Buff. v. 306. pl. cxxxviii. fig. 2. Penn. hist. of quad. n. 404.

Inhabits Ceylon, where it is named *Kiriwoula* by the natives.—The nose is very small; the ears are broad, short, and pointing forwards; the front, top of the head, neck, shoulders, back, and rump, are of a whitish yellow colour; the under jaw, breast, and belly, are bluish, tinged with yellow; the membrane and tail are mixed yellow and brown, striped with black: It is about two inches long from the muzzle to the rump.

124

17. Reddish striped Bat.—*Vesp. pictus rubellus*.

Exactly like the former, but having the upper parts of the body of a clear reddish brown, and the lower parts whitish. Penn. hist. of quad. p. 558.

D. Having two fore-teeth in the upper jaw, and six in the lower.

17. Senegal Bat.—16. *Vespertilio nigritia*. 16.

Has a tail: The anterior part of the head is of a yellowish brown colour; and the feet and tail are black. Schreber, i. 171. tab. lviii.

Marmotte volante. Daubenton, act. Parif. 1759. p. 385.—Senegal bat. Sm. Buff. v. 302. pl. cxxxvi. Penn. hist. of quad. n. 400.

Inhabits Africa, near the river Senegal.—The head is longish, with a somewhat pointed nose; the ears are rather short, and pointed; the body and head are of a tawny, or yellowish, brown, mixed with ash colour; and the belly is paler; the length is about four inches, or rather more, and the membrane measures near twenty-one inches when extended.

E. Having two fore teeth in the upper, and four in the lower jaw.

18. Bull-dog Bat.—17. *Vespertilio Moloffus*. 17.

Has a tail: The tail is long, and reaches beyond the membrane which connects it with the hind legs; and the upper lip is pendulous. Pallas, specileg. iii. 8.

Bull-dog bat. Sm. Buff. v. 303. Penn. hist. of quad. n. 399.

Inhabits the West India islands.—Of this species the two following varieties are known.

α. Greater Bull-dog Bat.—17. α. *V. Mol. major*.

Is of a brown-ash colour, on the upper parts of the body, and ash coloured on the under parts, having the middle of the belly of a brown colour. Schreber, i. 171. 172. tab. lix. fig. infer.

Mulot volant. Daubenton, act. Parif. 1759, p. 387—Bull-dog bat. Sm. Buff. v. 303. pl. cxxxvii. fig. 1.

The muzzle is very thick, with long lips, and a handsome nose. The ears are broad, and round, with their edges touching under the fore-head, having a fold forwards below the place of contact, and a concavity within the ear, on each side of this fold: The crown and hind part of the head, the top and sides of the neck, the shoulders, the back and the rump, are of a brownish ash colour; the middle of the belly is brown, and the rest of the belly, the breast and throat, are of an unmixed ash colour; the fore legs and toes are cinereous, and the membrane and tail are black: Five false vertebrae of the tail extend beyond the membrane: The length, from the muzzle to the rump, is about two inches.

β. Lesser Bull-dog Bat.—17. β. *V. Mol. minor*.

Is of a mixed brownish and ash colour, on the upper parts of the body, and a dirty white on the lower parts. Schreber, i. 171. 172. tab. lix. fig. sup. Sm. Buff. v. 304. pl. cxxxvii. fig. 2.

This animal seems to be of the same species with the preceding, but is smaller, being about an inch and two-thirds long. The head is less plump, the muzzle smaller, and the nose more elegant.

ly shaped; the whole upper parts of the body are yellow, with an ash coloured tinge; and the under parts are of a dirty white, inclining to a yellowish ash colour; the membrane and tail are of a mixed brown and yellow; and the tail projects beyond the membrane in the same manner with the former variety.

F. Having two fore-teeth above, and none below.

128

19. Cephalote.—18. *Vespertilio cephalotes*. 18.

Has a tail: The head is large, having tumid lips, spiral nostrils, warts below the orbits, and small ears, without any lid or operculum. Pallas, specileg. iii. 10. t. 1. Schreber, i. 172. tab. lxi. Sm. Buff. vii. 236. pl. ccxxxii.

Molucca bat. Penn. hist. of quad. n. 405.

Inhabits the Molucca islands.—This species is about three and three quarter inches long, and fifteen inches in extent; the tongue is furnished with prickly papillae; the hair on the upper part of the body is ash coloured, and on the under parts whitish; the head is very large, in proportion to the body, with a broad, blunt, simple nose; the nostrils are open, spiral gutters; the ears are small, simple, and stand a little backwards; the neck is very distinct, and seems longish, being thinly covered with hair; the tusks of the upper jaw have two small intervening teeth, which are wanting in the lower jaw: The female seems only to produce one at a birth.

129

β. Straw-coloured Cephalote.—*Vesp. cephalotes melinus*.

Resembles the former, except in colour, being of a fine straw colour, with a dull white belly. Penn. hist. of quad. p. 558. Lev. mus.

G. Having no fore-teeth above, and four below:

130

20. Purse-winged Bat.—19. *Vespertilio lepturus*. 19.

Has a tail: The nostrils are tubular; the ears are long, blunt at the extremity, and furnished with a lid; the membrane, which connects the legs, has a purse, or pouch, on the inside, on each side of the body. Schreber, i. 173. tab. lvii.

Pouch bat. Penn. hist. of quad. n. 401.

Inhabits Surinam.—The nose is somewhat produced, thick at the end, and beset with whiskers; the chin is divided by a perpendicular furrow; the ears are long and rounded at the ends; the tail is only partly inclosed in the membrane: The body is about an inch and a half long, being of a cinereous brown colour on the upper, and paler on the under parts.

21. Horse-shoe Bat.—20. *Vespertilio ferrum-equinum*. 20.

Has a tail: The nose resembles the figure of a horse shoe; the ears are of the same length with the head, and have no lid; the tail is about half the length of the body.

Horse-shoe bat. Sm. Buff. iv. 317. 7th spec. p. 324. pl. xciii. Penn. hist. of quad. n. 406. BRIT. ZOOLOG. i. 129.

Inhabits France, and Franconia in Germany, has lately been discovered in Kent, by Mr Latham of Dartford, and is found about the Caspian.—This species was first observed by the illustrious Daubenton, and described very accurately in his account of the various kinds of bats. The countenance is remarkably deformed, and its most striking feature is a membrane, which, shaped like a horse shoe, furrounds the nose and upper lip; the ears are large, broad at the base, sharp pointed, and incline backwards, having no lid, or little internal ear; the upper parts of the body are of a deep cinereous colour, and the lower parts are whitish. There is a greater and lesser variety, which are very similar in form.

131

α. Larger horse-shoe Bat.—20. α. *Vesp. fer.-equ. major*.

This variety is about three inches and a half long, from the tip of the nose to the origin of the tail; its extent is above fourteen inches. Schreber, i. 174. pl. lxii. upper fig.

132

β. Lesser Horse-shoe Bat.—20. β. *Vesp. fer.-equ. minor*.

The particular size and differences of this variety are not mentioned by authors, only that it is less than the preceding. Schreber, i. 174. pl. lxii. lower fig.

H. Having no fore teeth in either jaw.

133

22. New-York Bat.—21. *Vespertilio noveboracensis*.

Has a long tail: The muzzle is short and sharp pointed; and the ears are short and rounded. Penn. hist. of quad. n. 403. Arctic. zool. n. 82. Leverian mus. Forster's voy. 189.

Inhabits North America, and is also found in New Zeland.—The head is shaped like that of a mouse, having the top of the nose a little divided; the ears are short, broad, and rounded; the tail is very long, and is inclosed in the membrane, which at that part is covered with long, and very soft hair, of a bright tawny colour; the head and body are of a bright tawny colour, lightest on the head and beginning of the back; the belly is paler; and there is a white spot at the base of each wing; the membrane is thin, naked, and of a dusky colour; and the hind legs are very slender: The length is about two inches and a half, the tail near two inches long, and the extent of the wings ten and a half inches.

I. Of which the number and circumstances of the teeth are unknown.

134

23. Broad-winged Bat.—21. *Vespertilio lasiopterus*. 21.

Has a tail; and the membrane is extremely broad. Schreber, i. tab. lviii. B.

Its place and history unknown.

135

24. Broad-tailed Bat.—22. *Vespertilio lasiurus*. 22.

Has a very broad tail; and the lips are tumid. Schreber, i. tab. lxii. B.

The place and history of this and of the former species are not mentioned.

136

25. Clayton's Bat.—*Vespertilio americanus*.Is of a large size; has great ears, and long stragling hairs. Phil. Transf. abrid. iii. 594.
Penn. hist. of quad. p. 557. note. Arct. zool. n. 83.

Inhabits North America.—This species is not sufficiently described to enable it to be referred to any of the former species, or to ascertain whether it be distinct from them: It is placed here, in the mean time, to point out the necessity of farther inquiries to naturalists.—T.

II. B R U T A.

Have no fore-teeth in either jaw.

V. S L O T H.—5. *BRADYPUS*. 7.

Has no fore-teeth in either jaw: Has six grinders on both sides of each jaw, which are cylindrical, and obliquely cut off at the ends; the two foremost in each jaw being longer than the rest, and far distant from each other. The body is covered with hair.

137

I. Ai.—1. *Bradypus tridactylus*. 1.

Has three toes on all the feet; and a short tail. Mus. Ad. Fr. 4.

Curled bradypus, having three toes on the feet, armed with hooked claws. Brown. Jam. 489.—*Tardigradus tridactylus*, having three toes both on the fore and hind feet. Briss. quad. 21.—*Arctopithecus*. Gefn. quad. 869.—*Ignavus*. Clus. exot. 372.—Luyart. Nieuhof, Brasil. 27.—*Pigritia*, or Haut. Nieremb. hist. nat. 163. 164.—Sloth. Edw. av. t. 220.—Ai. Sm. Buff. vii. 150. pl. ccxiii. and ccxiv.—Pareffeux. Gautier, obs. sur l'hist. nat. i. part 2. 81. t. A.—Three-toed sloth. Penn. hist. of quad. n. 359. pl. xlix. Nat. mis. pl. 6.

Inhabits the warmer parts of South America.—Lives in trees, and feeds on fresh leaves, especially of the Cecropia; never drinks, and is afraid of rain: Climbs trees with great readiness, but walks with great difficulty, and very slowly, scarcely being able to travel fifty paces in the course of a whole day; turns its head often about as if astonished: The voice is in ascending hexachord, or six successively rising notes, making a most horrible clamour, accompanied with tears, and every mark of misery: The body is very hairy, and of a grey colour, having a naked face; the throat is yellow; there are no external ears: The tail is extremely short, and somewhat egg-shaped: The fore legs are longer than those behind, and are placed at a great distance from each other: The toes, of which there are three on each foot, are very close set, and have all exceedingly strong, narrow, hooked claws. There are two paps situated on the breast.

This animal, according to Nieuhof, grows to the size of an ordinary fox. The nose is blunt, and of a black colour; the face and throat are of a dirty white colour; the hair on the body is long, very uneven, of a brownish ash, or grey, colour, with a black line along the middle of the back, and a rusty shade on the shoulders; the back and limbs being irregularly spotted with black: The mouth is never without foam: Its manners are sluggish to an excessive degree; its general appearance disgusting; and the voice plaintive, piteous, and even horrible. It can live a prodigious time without food,

food, Kircher says forty days: Has vast strength in the paws, and fastens its claws into any thing with such force that they cannot be disengaged; hence, when beasts of prey attack this animal, it fastens on them so strongly, that both are often found dead in each others grasp.

139

2. Unau.—2. *Bradypus didactylus*. 2.

Has two toes on the fore feet, and no tail. Mus. Ad. Fr. 4. Schreber, ii. 200. tab. lxx.

Bradypus didactylus, having two toes on each fore foot, and three on the hind feet. Briff. quad. 22.—*Tardigradus*, from Ceylon. Seb. mus. i. 54. t. 33. f. 4. and t. 34. f. 1.—Unau. Sm. Buff. vii. 150. pl. ccxii.—Two-toed sloth. Penn. hist. of quad. n. 360.

Inhabits South America, and, according to some writers, is likewise found in India.—Lives on fruits and roots; has a weak sense of smelling, and its sight is better adapted for night than day: The body is covered with rusty-brown undulated hair; the head is round, with flat ears; and it has two paps situated on the breast.

The Count de Buffon insists that this animal is confined to South America, while other authors inform us that it is likewise found in India and in Guinea. Mr Pennant's authority for saying that it is found in the mountains near Madras, and the information of Bosman and Barbot, that sloths are met with in Guinea, are not to be doubted; but, from the general analogy of the South American animals not having been discovered in the other quarters of the world, I am strongly inclined to Buffon's opinion, and suspect that the Sloth of Madras, mentioned by Pennant, and the Sloth of Guinea, described by Bosman and Barbot, are different species from the Unau, or two-toed Sloth from South America. The hair on the body is long and rough, on some parts curled and woolly, in some of a pale red above and ash coloured below, on others of a yellowish white below and brown above. The length of the specimen in the British Museum, which Mr Pennant supposes young, is eleven inches. This species has forty-six ribs on each side, and the Ai only twenty-eight. The Unau, though heavy, and very awkward in his gait, is much more agile than the Ai, and is able to mount and dismount the highest trees several times a-day. There is one very singular circumstance in these two animals, that, instead of distinct excretory apertures, there is only one common canal, as in Birds.

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3. Five-toed Sloth.—*Bradypus pentadactylus*.

Has five toes on all the feet; and a short tail. Hitherto non-descript.

Bradypus urinus, Uriform sloth. Natur. misc. pl. 58. 59.

There are no fore-teeth in either jaw: In each jaw are two tusks, which are included by the lips; those below are about an inch and a half long, of a conical or tapering form, stand forwards, and are a little bent backwards at their ends; the upper tusks are about an inch longer, are more crooked, and are larger than the lower: There are two principal grinders above, and three below, on each side; these are short, flat, broad, and obtusely knobbed; besides these, on each side of the upper jaw, is one conically pointed small grinder, and on each side of the lower jaw are three such, which gradually diminish in size and length as they advance forwards: All these single pointed grinders, in both jaws, stand before the large principal grinders formerly described. The body is large, thick, clumsy, and highly arched in the back, and is universally covered with long, harsh, black hair,



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hair, which sheds to every side from the summit, or ridge of the back : The head, at the top of the face, is large and broad, having small dusky eyes, with round pupils ; the lower part of the face is narrow and projecting, with the mouth placed at the extremity of the snout or muzzle ; the neck is short and thick, and the ears are short, erect, hairy, and hid in the fur ; the mouth opens pretty largely, and, when shut, the upper lips receive the lower within their edges ; at the fore part of the snout the lips are thin, and meet together without overlapping, the lower lip being rather longer ; and they form occasionally a projecting tube for sucking ; the tongue is long, flat, broadish, and rather thin at the extremity, which is squared ; the nostrils are covered by a lengthened flap, like a second upper lip, which lies flat over them, extending as far forwards as the upper lip, and separated from it by a horizontal slit on each side, above an inch deep ; the fore part of the upper jaw and snout, for about four inches, wants bone, and its place is supplied by a moveable cartilage, seemingly articulated to the fore part of the upper jaw bone ; by raising this upwards, the animal can open its mouth without separating the jaws, and it employs this method when sucking in drink or soft food ; the tail is very short, and is covered with the same black hair as the rest of the body ; the legs are distant, short, strong, and covered with the same kind of hair as the body ; the fore legs are somewhat arched outwards, and allow of considerable lateral action ; the feet are small, and hairy on the upper parts, but have naked black soles ; each foot has five short toes, set close together, and furnished with long, narrow, hooked, white claws, about three inches long, and not retractile. The whole length of the animal is about four feet and a half, measured from the origin of the tail, along the arch of the back, to the end of the snout : It is about three feet high to the middle of the back when standing, and near five feet in circumference.

The general aspect of this animal, which is a female, is lurid, heavy, clumsy, and forbidding, though not of a ferocious appearance ; having a general resemblance to a mixture between the Bear, the Sloth, and the Hog. In its state of confinement it always keeps a groveling position, on its belly, with its snout lying on the ground ; and, even when forced to rise, still keeps the head exceedingly low and flouching. When irritated, it gives one short, harsh cry, between a grunt and a roar, which it does not repeat but on a second provocation. It catches at any thing presented to it with one or both fore feet, carrying the substance to its mouth, and biting hard with the grinders on one side. The general colour is black, except the face, which is dark grey, and a few grey spots between the legs, and on the breast and belly.

In its present state of confinement, the keeper says that it feeds on bread, and is fond of fruit, raw eggs, fat, and marrow, but will not eat roots. When any thing fluid is presented, it sucks strongly through a tubular opening of the lips, already described. The keeper says, that this animal was dug out of a sand hill near Patna in Bengal ; and that, on several occasions, when loose, it has immediately endeavoured to burrow in the ground. I am inclined to think, however, that the feet are formed for climbing trees, and by no means for digging ; as the soles, especially of the fore feet, are narrow, and as the claws are narrow and hooked : Besides, it is fond of fruits which grow on trees, and rejects roots which are dug out of the ground.

This animal is hitherto a non-descript, at least so far as I can learn, and was lately exhibited in Edinburgh, under the foolish name of *Lion-monster* ; but by what name it is known, in the language of the country from whence it came, the keeper is not informed ; neither does he know any thing of its history or native manners. It comes nearest in generic characters to the Sloth, with which I have arranged it ; and the foregoing description will give a general idea of the animal to naturalists, until its history can be investigated more accurately when its place comes to be known.

Since writing the above, I have seen a description of the same individual, accompanied with a very accurate wooden cut, by Mr Bewick of Newcastle, Gen. Hist. of Quad. 2d ed. p. 266, who supposes it congeneric with the Bear: To this opinion I cannot subscribe, as all the generic characters of that genus are entirely wanting in the animal under consideration. The same individual is described, under the name of Ursine Sloth, in the Naturalist's Miscellany; and I am happy to find that the ingenious author of that useful publication has referred it to the same genus in which it has been placed, in the manuscript of this work, ever since its appearance in Edinburgh.—T.

VI. ANT-EATER.—6. *MYRMECOPHAGA*. 8.

Has no teeth: The tongue is round, and capable of being advanced very far out of the mouth, which is very narrow, and placed at the extremity of the snout. The body is covered with hair.

This genus feeds on ants, the nests of which they dig up with their claws, and draw out the insects by inserting their long tongues into the nests. They may be tamed, and will live for a long time without food. They sleep during the day, with their heads reclined under the fore legs, and go out in the night, in quest of food. Their fur is exceedingly thick set.

141

1. Two-toed Ant-eater.—1. *Myrmecophaga didactyla*. 1.

Has two toes on the fore paws, and four on the hind feet; and a bushy tail. Mus. Ad. Fr. i. 8.

Two-toed ant-eater, with a short snout, having two toes on the fore, and four on the hind feet. Briss. quad. 98.—Tamandua, or White coat, from America. Seba, Mus. i. 60. t. 37. f. 3.—Little ant-eater. Edw. av. t. 220.—Fourmiller. Sm. Buff. v. 352. pl. cxlviii.—Least ant-eater. Penn. hist. of quad. n. 372. pl. 1.

Inhabits South America.—Walks very slowly on the heels. The body is of a yellow colour. This species is smaller, and has a shorter muzzle than the other species of the genus. According to Mr de la Borde, this animal is of a bright reddish colour, bordering on golden yellow, and is about the size of a squirrel: The tongue is spiral, and like a worm: It has no cry, and feeds only in the night. By Mr Pennant, this species is described as having a conical nose, a little bent downwards; small ears hid in the fur; the body and head being seven inches and a half long, and the tail eight and a half; the head, body, limbs, and upper part and sides of the tail, are covered with long, soft, silky hair, or rather wool, of a yellowish brown colour; the tail is thick at the base, and tapers to a point; being naked for the last four inches, on the lower side, and prehensile.

The figures of this animal, as given by the Count de Buffon and Mr Pennant, differ remarkably from each other: In the former, the fore paw has only one claw, and the hind paws are so confused, that only a flat, broad, palmated mass can be discovered, with a kind of thumb or false toe on each side of each paw; while, in the latter, the fore paws have each two, and the hind paws each four, distinct claws. The form of the head in these two figures is likewise very different; but in both

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the tail is prehensile. Where two such great naturalists differ so very materially, I do not pretend to ascertain which is right; but it seems probable that these are two distinct species; and, if so, that the species described by Buffon should be called the *Myrmecophaga monodactyla*: Perhaps his figure might be taken from a mutilated dry skin.—T.

141

2. Three-toed Ant-eater.—2. *Myrmecophaga tridactyla*. 2.

Has three toes on the fore, and five on the hind feet; and a bushy tail.

Three-toed ant-eater, with a very long snout, having three toes before and five behind, and long flaccid ears. Briff. quad. 27.—Tamandua-guacu. Seba, Mus. i. 60. t. 37. f. 2.

Inhabits India.—Travels very slowly; climbs trees; defends itself with its broad tail against flies, using it as a fly-flap; has two paps on the breast and six on the belly; the back has a longitudinal mane, and there is a black stripe on each side; the tail is flat, and covered with long hairs, which are black on the under side and white at the top. Dr Gmelin is uncertain if this be a distinct species?

142

3. Great Ant-eater.—3. *Myrmecophaga jubata*. 3.

Has four toes before, and five behind; the tail covered with flowing hairs. Schreber, ii. 203. tab. lxxvii.

Four-toed ant-eater, with a very long snout, having four toes before, and five behind, and the tail covered with very long hairs. Briff. quad. 24.—Tamandua-guacu. Marcgr. Bras. 225.—Tamanoir. Sm. Buff. v. 333. pl. cxlvii.—Great ant-eater. Penn. hist. of quad. n. 369.

Inhabits South America, and the kingdom of Congo in Africa.—This animal covers itself with the tail when asleep, and to guard against rain; it has a black stripe on the side and breast; the tail is very thickly covered with long hair, and the hairs are not round but flat. The flesh of this animal is eaten by the natives of America.

From the end of the muzzle to the origin of the tail, it is about four feet long; the head is about fifteen inches, and the tail about two feet and a half; this last being covered with coarse hair above twelve inches long; the muzzle is immoderately long, the neck short, the head narrow, the eyes small and black, the ears roundish, the tongue thin, above two feet long, and, when not stretched out, is folded up in the mouth; the legs are about a foot long; those before are a little longer and thinner than the hind legs; the feet are round, having four claws before, the two middle ones being longest, and five short claws behind: The hair on the body and tail is mixed black and white; the hair on the tail is disposed like a feather, and the animal, when he wants to defend himself from rain, or the heat of the sun, turns it on his back, and covers his whole body; there is a black stripe on the breast, which stretches along the sides, and terminates on the back near the thighs; the hind legs are nearly black, and those before are almost white, with a black spot about the middle.

143

β. Short-nosed Great Ant-eater.—*Myrm. jubata sima*.

This animal, which was sent from Guinea to the Count de Buffon, has a shorter muzzle than the former; the distance between the eye and ear is less, and the legs are shorter; the claws are similar: The muzzle, to the ears, is covered with short brown hairs; about the ears the hairs begin to grow

longer; and on the sides of the body it is two inches and a half long, and as hard as that of a wild boar: It is of a mixed deep brown and dirty white colour: The length of the body and head is three feet eleven inches. Sm. Buff. v. 347.

144 4. Tamandua.—4. *Myrmecophaga tetradactyla*. 4.

Has four toes before, and five behind; with a naked tail. Schreber, ii. 205. tab. lxvi.

Ant-eater, with a very long snout, having four toes before and five behind, and the tail almost naked. Briff. quad. 26.—Tamandua. Sm. Buff. v. 344.

Inhabits South America.—Goes out only in the night, and sleeps during the day: When irritated, seizes on a stick, or other object, with his fore claws, and fights on end, sitting on his hind legs: The extremity of the tail is naked and prehensile, by means of which he is enabled to suspend himself from the branches of trees: Has a black stripe on the breast and side.

145 5. Five-toed Ant-eater.—*Myrmecophaga pentadactyla*.

Has five toes on the fore paws; and a long flat tail entirely covered with hair.

Sm. Buff. v. 350. pl. cxlix.

Striped ant-eater. Penn. hist. of quad. n. 731.

The head is thick, and the upper jaw and snout are very long, having the mouth placed far from the extremity; the eyes are very small; the ears small, rounded, and fringed above with large black hairs; the hair on the whole body is long; on the back, head, and legs, it is tawny, and striped with black or dusky, and on the belly it is of a dirty white colour; the tail is wholly covered with long tawny yellow hair, barred across with rings of a blackish tinge: The body, from the tip of the nose to the rump, is thirteen inches long, and ten inches in height; and the tail is seven inches long.

146 β.—Besides this animal, which the Count de Buffon supposes only a variety of the Tamandua, he mentions another from the information of Mr de la Borde, under the name of Little Tamanoir, which has whitish hair about two inches long, weighs above sixty pounds, has no teeth, and very long claws; having the same manners with the other animals of the genus, feeding only during the night, and frequenting the great forests: But this account is by no means sufficient to ascertain whether it be a distinct species, or, if only a variety, to what species it should be referred.

147 6. Cape Ant-eater.—5. *Myrmecophaga capensis*. 5.

Has four claws on the fore paws; a long snout; large pendent ears; and a tail, which is shorter than the body, and tapers at the point. Pallas, Misc. zool. n. 6.

Inhabits the country at the Cape of Good Hope.—This animal is much larger than the other species of the genus, so that Kolben compares it to the size of a hog, and asserts that it weighs a hundred pounds: It burrows in the ground, sleeps during the day, and only goes abroad at night.

VII. MANIS.—7. *MANIS*. 9.

Has no teeth: The tongue is round, and very extensile; the mouth is small, and is situated at the extremity of the snout; the upper parts of the body are covered with moveable bony scales.

The animals of this genus live on ants, worms, and lizards; they have no voice; they walk slowly, burrow in the ground, and go out only during night in search of food: When irritated, they erect their scales on end; and, when in danger from enemies, they contract themselves into a globular figure, the head and tail being drawn together under the belly, so that nothing appears but a globe, all prickly with erected sharp scales; the tail is fat, and greatly esteemed by epicures; the whole upper parts of the body are clothed with scales, which are channelled at their bases, and stand sufficiently distinct from each other to allow of motion; they are laid over each other like tiles, a good deal resembling the calyx of an artichoke; the belly, breast, and insides of the legs and thighs, are hairy; and the tail is covered on every side, even below, with scales; the ears are rounded and naked; the middle claws of the fore paws are larger than the rest, and these are bent under the foot in walking. These animals have a strong affinity with the Ant-eaters, from which they chiefly differ in the covering of the body.

1. Pangolin.—1. *Manis pentadactyla*. 1.

Has five toes on all the feet. Aët. Stock. 1749, p. 265. t. 6. f. 3. Schreber, ii. 210. tab. lxix.

Philodotus pentadactylus, having five toes both on the fore and hind feet, and roundish scales. Briff. quad. 29.—Indian scaly-lizard. Bont. Jav. 60.—Lesser scaly-lizard, having bristles interperfed. Petiv. gaz. 32. t. 20. f. 2.—Larger scaly-armadillo of Ceylon, called *Diabolus tajovanicus*. Seba, Mus. i. 88. t. 54. f. 1. et 53. f. 4.—Scaly ant-eater, *Myrmecophagus squamosus*, or *Dæmon thebaicus*. Herm. Mus. 295.—Pangolin. Sm. Buff. v. 355. pl. cli.—Short-tailed manis. Penn. hist. of quad. n. 368.—Five-toed manis. Nat. Misc. pl. 11.

Inhabits Guinea, China, India, and the islands of the Indian Ocean.—This is the larger species of the genus: The fore feet are covered with scales to their extremity; the scales are large, thick, convex, not much channelled, rounded, and sharp at the edges; the under parts of the body have no hair; but, between the scales on the back, are a few long thick hairs, like hogs bristles: When full grown, it is from six to eight feet long, including the tail, which is almost as long as the body.

2. Phatagin.—2. *Manis tetradactyla*. 2.

Has four toes on all the feet. Schreber, ii. 211. pl. lxx.

Philodotus tetradactylus, having four-toed feet, pointed scales, and a very long tail. Briff. quad. 31.—Foreign scaly lizard. Clus. exot. 374.—Indian lizard, of the same genus with the Yvana. Aldr. ovip. dig. 668. t. 667.—Scaly-lizard. Grew's rarities, 46.—Phatagin. Sm. Buff. v. 355. pl. cli.—Long-tailed manis. Penn. hist. of quad. n. 367.

Inhabits India.—This species is much less than the former: The fore feet, and even a part of the fore legs, are destitute of scales and covered with hair; the scales are much striated, or channelled, and are each armed with three sharp points; the lower parts of the body are covered with hair, and there are no bristles among the scales: One, formerly in the British Museum, was a yard and a half long, of which the tail was a yard and half a quarter, the body, including the head, being only fourteen inches. These animals roll themselves up like a clue, the tail forming a belt round the body, with all its scales erected: In this state they brave the fury of their enemies, even of the tigers, which endeavour in vain to devour them.

VIII. ARMADILLO.—8. *DASYPUS*. 10.

Has no tusks: The grinders are short and cylindrical, and of these there are seven on each side in the upper jaw, and eight on each side of the lower; the body is covered with a testaceous bony coat of mail, which is intersected by circular bands of the same kind.

The animals of this genus * live on roots, melons, potatoes, flesh, fish, insects, and worms; they burrow in the ground, remain in their holes all day, and only go out during the night; are of mild and gentle dispositions, and defend themselves from their enemies by rolling themselves into a globular form, presenting their shell or armour on all sides. They chiefly inhabit South America. The females bring forth every month.—As very considerable confusion seems to have crept into the arrangement of the species of this genus, I have preferred the arrangement of the Count de Buffon, to that of Linnæus, in the following enumeration of species; but the characters and synonyms of Gmelin's edition of the *Systema Naturæ* are preserved.—T.

All the species of this genus are covered on the head, neck, back, flanks, rump, and tail, even to its extremity, with a crust resembling bone, which is itself covered with a thin, smooth, transparent, skin: The only parts which want this crust are the throat, breast, and belly, which have a granulated skin, like a plucked fowl, on which, by accurate inspection, the rudiments of scales, similar to the crust, are discoverable: The crust is divided into several bands or girdles, connected together by membranes, which allow a certain degree of movement to this armour. All the species have two bony shields, one covering the shoulders, and another on the rump, except the Cirquinçon, or eighteen banded species, which has only that on the shoulders. They are hunted with little dogs, which give notice, by the scent, of their haunts, whence they are dug out; being very good to eat.

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1. Apara.—3. *Dasypus tricinctus*. 2.

Has three moveable bands or girdles, and five toes on all the feet. Hoult. nat. ii. 280. t. 16. f. 2. Schreber, ii. 215. tab. lxxi. A. and lxxvi. 1. 2.

Cataphractus tricinctus, having two shields and three belts. Briss. quad. 24.—Tatou, or Armadillo. Red. exper. 91. t. 92. Seba, Mus. i. 62. t. 38. f. 2. 3.—Tatu-apara. Marcgr. Bras. 232. Sm. Buff. v. 366.—Armadillo, or another kind of Tatou. Clus. exot. 109. Grew, Mus. 17.—Three-banded armadillo. Penn. hist. of quad. n. 361.

Inhabits

* The Iron-pigs, and Shield-hogs, of some writers.—T.

Inhabits Brasil.—Lives on melons, potatoes, and poultry. The middle belt, in the armour of this species, is very narrow; and each scale, of which the shields are composed, is knobbed on the surface: The head is oblong and almost pyramidal; the eyes are small; the ears short and rounded; and the top of the head is covered by a helmet of one piece: All the feet have five toes; the two middle claws on the fore feet are very large, the claws on each side of these are smaller, and the fifth, or exterior claw, is very small; the claws on the hind feet are smaller, and more equal in size, than those before: The body is a foot long, and eight inches broad; the tail is not above two inches long, and entirely covered with crust: The shields, on the shoulders and rump, consist of five cornered pieces, very regularly arranged; the three moveable girdles are composed of square or oblong pieces, having a number of lenticular scales, of a yellowish white colour, on each.

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2. Four-banded Armadillo.—4. *Dasypus quadricinctus*. 3.

Has four moveable bands.

Cataphractus quadricinctus, having two shields and four belts. Briff. quad. 25.—Cheloniscus. Fab. Columna, anim. aqu. et ter. ii. 15. t. 16.

Its place uncertain. —Dr Gmelin is uncertain whether this should be considered as a distinct species, or merely as a variety of the Apra? He is likewise at a loss whether the Four-banded Armadillo of Molina, Hist. Nat. Chil. lib. iv. 270. be the same with this, or if it should be considered as a distinct species.—The Count de Buffon is very angry with Linnæus for admitting this four-banded species on the authority of Columna, who did not know the name of the animal, and had only seen a dried specimen contracted in form of a ball, pasted clumsily together, and even some pieces of it wanting. Buffon even peremptorily insists that a Four-banded Armadillo has no existence in nature: The circumstance, however, of such a species being mentioned by Molina, though not with sufficient accuracy to enable Dr Gmelin to give a systematic description, shows how much even Buffon ought to have been guarded in animadverting on Linnæus.

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3. Encouberto.—5. *Dasypus sexcinctus*. 4.

Has six moveable girdles, and five toes on every foot. Mus. Ad. Fr. 7. Schreber, ii. 218. tab. lxxi. B.

Cataphractus sexcinctus, having two shields and six belts. Briff. quad. 25.—First Tatu, or Armadillo of Marcgrave. Raj. quad. 233.—Tatu, or Tatu-paba, of the Brazilians, Armadillo, of the Spanish, and Encouberto, of the Portuguese. Marcgr. Bras. 231. Olear. Mus. 7. t. 6. f. 4. Clus. exot. 330.—Encouberto. Sm. Buff. v. 369. pl. clv.—Six-banded armadillo. Penn. hist. of quad. n. 362.

Inhabits South America.—Lives on melons and other fruits, and on potatoes and other roots, being exceedingly troublesome to the plantations: Is very good eating. The penis is very conspicuous and spiral, having a flat compressed glans, with thickened edges; the back of the neck is covered by a particular little shield. This is larger than the former species. The top of the head, the neck, body, limbs, and tail, are covered with a very hard crust, composed of pretty large pieces, most elegantly placed; on the skin of the joints are several whitish hairs, similar to those on the throat, breast, and belly; the shield on the rump has a fringed border; all the inferior parts of the body are covered

ed with a granulated skin; the crust on the head is long, broad, and consists of one piece, reaching as far as the moveable band, or small shield, on the neck; the muzzle is sharp, and, with the head, resembles a pig; the eyes are small and sunk; the tongue is narrow and pointed; the ears are short, brown, and naked: There are eighteen teeth in each jaw; the tail is thick at the rump, narrowing to the point, where it is thin and rounded; the body is of a reddish yellow colour, and is commonly very plump and fat.

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4. Seven-banded Armadillo.—6. *Dasypus septemcinctus*. 5.

Has seven moveable bands; the fore feet have each four toes, and the hind feet five.

Amen. acc. i. 281. Schreber, ii. 220. t. lxxii. lxxvi. f. 3. 4.

Tatus, a foreign quadruped. Gefn. quad. 103.

Inhabits South America.—Dr Gmelin adds, that it inhabits India, and that, in reality, there are only six bands. The shield on the shoulder is notched on its anterior margin.

The Count de Buffon, vol. v. 369. in a note, quotes Marcgrave as saying, “In dorso septem sunt divisurae, cute fusca intermedia.” He applies this to the Encouberto, or six-banded species, and makes the following observation, which seems intended as a reflection against the great Linnæus: “The word *divisurae*, as well as *commissurae*, and *juncturae*, signify the intervals between the bands, and not the bands themselves; seven intervals are necessary to make six bands.” This criticism might possibly be just, though, even then, I should scruple to subscribe to it, if the former part of the sentence, *seven divisions on the back*, were not followed by the latter, *having a brown skin between each*. It is very evident that the *brown skin* could not be interposed between the intervals of the bands, but in the intervals, and between the *divisurae*; there must therefore have been in the animal, as described by Marcgrave, and as understood by Linnæus, seven solid bands or divisions of the shell, produced by means of eight intervals.—T.

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5. Eight-banded Armadillo.—7. *Dasypus octocinctus*. 8.

Has two shields and eight bands. Schreber, ii. 222. lxxiii. lxxvi. f. 5. 6.

Cataphractus octocinctus, having two shields and eight bands. Brissl. quad. n. 27.—Aiatochtli. Hernaud. Mex. 314.—Tatouete. Sm. Buff. v. 371.—Eight-banded armadillo. Penn. hist. of quad. n. 363.

Inhabits Brazil.—Dr Gmelin is uncertain whether this and the *D. Septemcinctus*, may not be the same animal, and whether it differs from the eight-banded species described by Molina in his Natural History of Chili, book iv. p. 271. which has five toes on each hind foot? The head is small, and covered with a helmet; the muzzle is sharp; the ears are about two inches long, and erect; the eyes are small and black; there are four toes on the fore, and five on each hind foot. It is about ten inches long, from the tip of the nose to the rump, and the tail is nine inches long, being covered with moveable rings, divided into nine joints by interposed flexible skin; the crust on the back is of an iron-grey colour; the flanks and tail are whitish grey, spotted with iron-grey; and the belly is covered with a whitish granulated skin, interspersed with a few hairs; the legs are about three inches long; the crust of the shields is interspersed with prominent white knobs, about the size of small peas,
and

and the moveable bands are marked with triangular figures: The crust is easily penetrated, even with small shot; and the flesh is very white, and reckoned extremely delicate eating.

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6. Nine-banded Armadillo.—8. *Dasybus novemcinctus*. 6.

Has nine belts; the fore feet have four claws, and the hind feet five. Mus. Ad. Fr. 6. Houtt. nat. ii. 284. t. 16. f. 3. Schreber, ii. 223. tab. lxxiv. lxxvi. f. 7. 10.

Cataphractus novemcinctus, having two shields and nine belts. Briss. quad. 42.—Tatus. Gefu. quad. 935.—Tatu-ete. Marcgr. Bras. 235.—Tatu, or American Armadillo. Seba, Mus. i. 45. t. 29. f. 1. —Armadillo, or Aiatochtli. Nieremb. hist. nat. 158. upper fig.—Pig-headed armadillo. Grew, Mus. 18.—Cachichame. Sm. Buff. v. 373. pl. clii.—Nine-banded armadillo. Penn. hist. of quad. n. 364.

Inhabits South America, being particularly common in Guiana.—The flesh is very good eating. Dr Gmelin expresses his uncertainty whether the eleven-banded Armadillo of Molina, having four toes on the fore-feet, and five behind, Hist. Nat. Chil. book iv. p. 271. be a distinct species, or if it should belong to this place as a variety? The Count de Buffon thinks it probable that this nine-banded Armadillo is the male of the former, or eight-banded species. The head is five inches long, the body eighteen, and the tail a foot, or perhaps more; as in another specimen, considerably smaller, the tail was eleven inches, while the body was only seven and a half; the head is long and narrow, with a long sharp pointed muzzle, and longish blunt ears; the crust on the shoulders, rump, and head, is marked with six-sided figures; and the divisions of the belts with transverse, wedge-like marks.

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β.—In the Leverian Museum is a specimen of the same form, proportions, and number of bands; but the crusts on the head and other parts are covered with large scales, which want the above described figures. Penn. hist. of quad. p. 501.

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7. Kabassou.—*Dasybus duodecemcinctus*.

Has twelve moveable bands and five toes on all the feet. Sm. Buff. v. 375. pl. cliii.

Dasybus uncinatus. Syst. nat. ed. Gmelin. p. 54. G. 10. sp. 1.—*Cataphractus duodecemcinctus*, with two shields and twelve belts. Briss. quad. 43. Schreber, ii. 225. tab. lxxv. lxxvi. f. 11. 12.—Tatu, or African Armadillo. Seba, Mus. i. 47. t. 30. f. 3. 4.—Armadillo. Penn. hist. of quad. n. 365.

Inhabits South America.—In the Systema Naturae, misled by the mistake of the editor of Seba's Museum, it is said to come from Africa. The covering of the fore part of the back is made up of seven series of little shields, and on the hind part of nine. The head is thicker and broader, and the muzzle less slender than in the other species; the legs and feet are also thicker; the shield on the shoulder is made up of four or five rows, composed of large four-sided pieces; the moveable bands are also composed of almost square and large pieces; those of the rump shield are similar to the shoulder shield; the helmet is made up of large irregular pieces: Between the joints, and in other parts of the armour, are some bristly hairs; on the breast, belly, legs,

legs, and tail, are the rudiments of scales, which are round, hard, polished, and surrounded with small tufts of hair: The head is seven inches long, the body twenty-one inches, and the tail is shorter than the body.

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8. Largest Armadillo.—*Dasypus maximus*.

The legs and tail are covered with a skin which is divided into regular lozenge shaped scales; the shell has twelve moveable bands. Sm. Buff. v. 377. pl. cliv. Penn. hist. of quad. p. 501.

Inhabits Cayenne.—This has likewise twelve moveable bands; is of a black colour, and much the largest species of the genus, being two feet ten inches in length, from the tip of the nose to the origin of the tail, which is one foot eight inches long; the tail is thick at the rump, and tapers to a point, being covered with a skin divided into regular lozenge shaped scales, as are the legs; the head and muzzle are longish, and the ears are small and erect: The female brings forth eight, and sometimes ten, at a litter, in very deep holes. It feeds, during the night, on worms, wood lice, and ants; and the flesh is good, resembling that of a pig in flavour.

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9. Cirquincon.—2. *Dasypus novemdecemcinctus*. 7.

Has no shield on the rump, and eighteen bands cover the back, from the shield on the shoulder to the origin of the tail. Sm. Buff. v. 377.

Dasypus novemdecemcinctus, or having eighteen bands, with a simple covering. Syft. nat. ed. Gmelin, p. 55. n. 7. Syft. nat. ed. vi. n. 12. 1. β.—*Cataphractus novemdecemcinctus*, having only one shield and eighteen belts. Briff. quad. 37.—*Tatu mustelinus*, or Weasle-like Tatu. Raj. quad. 225.—Weasle-headed armadillo. Grew, Mus. 19. t. 1.

Inhabits South America.—Dr Gmelin is uncertain if this be really distinct from the four-banded species, and from the eighteen-banded, described by Molina, Hist. Nat. Chil. book iv. p. 271. which has four toes on the fore legs? All the other armadillos have two shields, one on the shoulders, and another on the rump; but this species has only one, which is on the shoulders. The body is about ten inches long, the head three, and the tail five; the legs are two or three inches long; the head resembles that of a weasel, having a large flat forehead, small eyes, and the ears about an inch long; the armour of the head and legs is composed of round scales, about a quarter of an inch diameter; that of the neck, in one piece, is formed of small square scales; the shield on the shoulders is formed of rows of similar scales, adhering firmly together; from thence to the tail are eighteen moveable bands, of which the anterior are larger, and are formed of square and oblong pieces, and the posterior smaller, and composed of round and square pieces mixed; all these bands are united by a flexible skin; the first half of the tail is covered with six rings of small square pieces, and the rest, to the point, with irregular scales; the breast, belly, and ears, are naked.

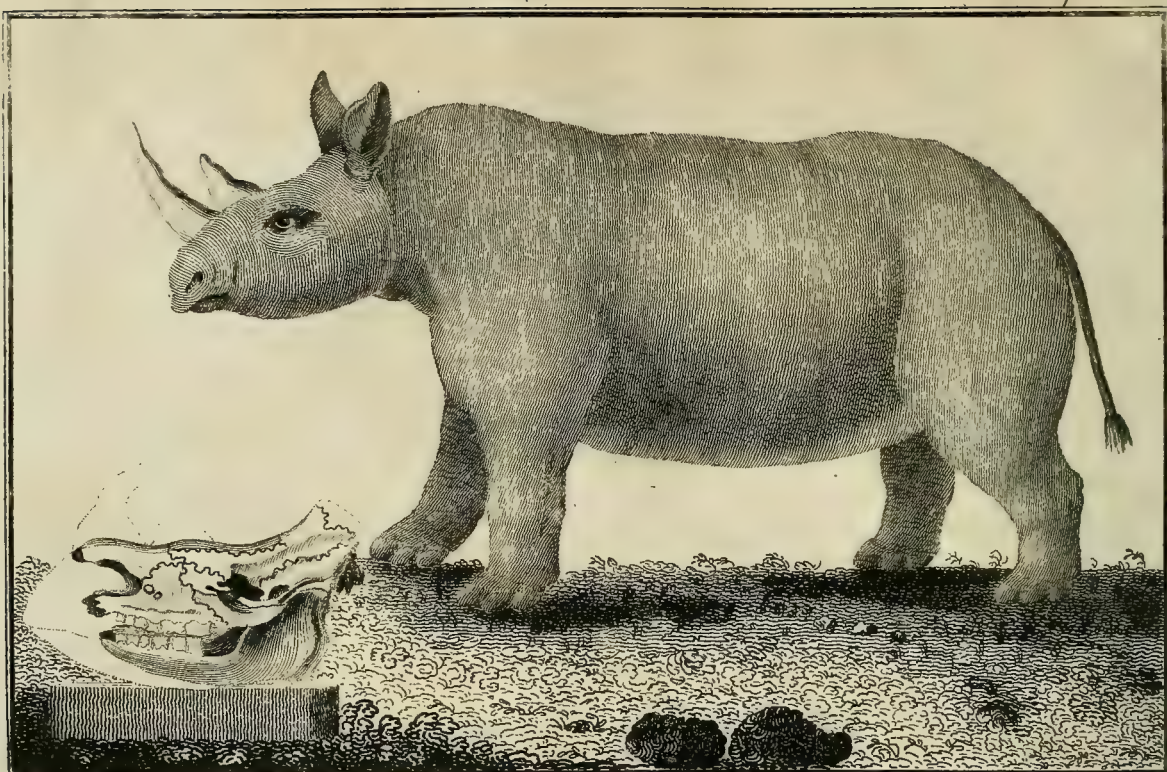
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10. Long-tailed Armadillo.—*Dasypus longicaudatus*.

Has nine moveable bands, and a very long jointed tail. Sm. Buff. v. 390. pl. clvi.

American armadillo. Dr Watson, Phil. Transf. liv. pl. 7.

Inhabits



Nº 162



Nº 163

Inhabits America.—Is about the size of an ordinary cat, and weighs seven pounds: Was fed on flesh and milk, and refused grain or fruits.

IX. RHINOCEROS.—9. *RHINOCEROS*. 36.

Has a solid, persistent, conical horn, situated on the nose, and not adhering to the bone.

1. One-horned Rhinoceros.—1. *Rhinoceros unicornis*. 1.

Has only one horn.

Gefn. quad. 842. Raj. quad. 122. Klein, quad. 26. Grew, musf. 29. Worm. musf. 336. Briff. quad. 78. Parsons, in phil. transf. xlii. 523. Edw. av. tab. 221. f. 2. Plin. l. viii. c. 20. Knorr, delic. ii. 110. t. K. X. Albin. tab. musf. 4. 8. Schreber, ii. 44. tab. lxxviii. Br. musf. Ashm. musf. Lever. musf. Sm. Buff. vi. 92. pl. clxiv. Penn. hist. of quad. n. 67.

Inhabits between and near the Tropics, in marshy places, being found in Bengal, Siam, Cochin-China, Quangsi in China, in the islands of Java and Sumatra, and in Africa.—This animal is mentioned in the book of Job under the name of *Reem*, and was not unfrequently exhibited in the public fights of animals in the Roman games; yet was unknown in Europe during a long series of years, no specimens having been seen before the sixteenth century. It lives on thorns and other spinous plants, and is fond of wallowing in the mire; may be tamed in some degree, and becomes mild, unless when provoked; but, when enraged, will even overturn trees with its violence. The male voids his urine and copulates backwards: The sight of this animal is weak, but its hearing, and sense of smelling, are remarkably acute: In stature and magnitude of body, except that the legs are shorter, this animal equals the elephant, but falls vastly behind in sagacity and docility: In form, in manners, and in its grunting voice, it comes nearer to the Hog genus, especially the Ethiopian species. The skin is so hard that it resists the effect of arrows, swords, or even of musket balls, which rebound from it without doing injury; it is entirely naked, except the tail and ears; it is divided by several folds, or transverse plaits, which are very conspicuous and regular in their situation; 1st, behind the head; 2d, on the shoulders; 3d, from the back down the loins, before the thighs, and along the belly; 4th, cross the thighs: These allow of motion to the skin, which is hard and inflexible like a shell or coat of armour; the inside of the plaits being composed of a very soft pliable skin; the skin on the belly is soft, like that within the plaits; the flesh is coarse, spongy, and hardly eatable; the tongue is soft and smooth; the horn is fibrous in its texture, surrounded with coarse hair at the root, is conical, and tapers to a sharp point, and is sometimes three feet long: In adults there are no fore-teeth, but, in young animals, a few solitary straggling cutting teeth are found, which stand at considerable distances from each other; the feet have each three hoofs, which are placed on the fore part; the tail is small, narrowing towards the point, and only reaches to about the middle of the hind legs.

2. Two-horned Rhinoceros.—2. *Rhinoceros bicornis*. 2.

Has two horns.

Syst. Nat. ed. x. p. 56. n. 2. Sparman, act. Holm. 1778, trim. 4. n. 5. D^o. voyage to the Cape of Good Hope, 4to, London, 1784, vol. ii. 96. pl. 3. Martial, spect. epig. 22. Phil. transf. abr. ix. 100. & xi. 910. Phil. transf. lvi. 32. t. 11. Kolben, ii. 101. Flacourt, Madagaf. 395. Lobo, Abyf. 230. Bruce, Abyf. v. 85. & fig. Penn. hist. of quad. n. 66. pl. xv.

Inhabits Africa.—The bones of this animal, as we are lately assured by Pallas, are often found buried even in the north of Russia. This species or variety, is formerly mentioned by Pausanias and Martial, is represented on the Prenestine pavement, and on a coin of the Roman Emperor Domitian, and is described by Cosmas Ægyptius, who travelled into Ethiopia, in the sixth century, under the reign of Justinian. The difference between this and the former species can scarcely be attributed to age or sex; though Dr Gmelin seems hardly to consider them as different species. The flesh resembles that of the hog; and the viscera are similar to those of the horse; it has no gall-bladder, and no fore-teeth; the second horn is situated above the first, or nasal horn, nearer the fore-head. A variety of this species, having three horns, occurs very rarely; the third horn being only a kind of excrescence from one of the other two.

If both Sparrman and Bruce are faithful in their representations of the Rhinoceros with two horns, the animals they describe are by no means of the same species: The figure given by Mr Bruce exactly corresponds with the description already given of the one-horned Rhinoceros in every thing but the additional horn, so that, *mutatis mutandis*, it may serve for either; on the contrary, the figure given by Sparrman differs totally from that of the one-horned species, for the remarkable folds on the skin are entirely wanting: Sparrman has the good fortune to have the authenticity of his representation not a little strengthened by the figures of two Rhinoceroses, each with two horns, one on the Prenestine pavement, and another on a medal of Domitian, in both of which the skin is smooth. I am therefore forced to believe that the Abyssinian Rhinoceros, as represented by Mr Bruce, is only a variety of the Asiatic, or one-horned kind, while that of Sparrman is a distinctly different species.—T.

X. SUKOTYRO.—*SUKOTYRUS*.

Has a horn on each side of the head close to the orbits.

1. Javan Sukotyro.—*Sukotyrus indicus*.

Has a short, narrow, upright mane, along the back, from the back of the head to the rump. Nieuhoff, voy. to India, in Churchill's coll. ii. 360. & fig.

Inhabits the Island of Java.—The Sukotyro, as the Chinese call it, is a very odd shaped beast; it is of the bigness of a large ox, with a snout like a hog, having two long rough ears, and a thick bushy tail; the eyes are placed upright in the head, quite different from other beasts; on the sides of the head, next to the eyes, stand two long horns, or rather teeth, not quite so thick as those of the Elephant; it feeds on herbage, and is but seldom taken. This is the description given by Mr Nieuhoff.

hoff. By the figure, this animal is very thick and clumsy, with strong thick legs and feet; which last are each armed with four knobs, or half hoofs, on their fore parts; the nose is very broad and truncated; the ears are very large and flouching; the tail is covered with flowing hairs, and reaches lower than the middle of the hind legs; the skin is smooth, and is entirely free from plaits, like those on the one-horned Rhinoceros.

XI. ELEPHANT.—10. *ELEPHAS*. §.

Has no fore-teeth in either jaw, and no tusks in the lower jaw; the tusks of the upper jaw are very long, and stretch far out of the mouth: Has a long, extensile, and flexible, cartilaginous trunk, or proboscis, on the nose, which is capable of laying hold even of very minute objects. The body is almost naked.

164 1. Great Elephant.—1. *Elephas maximus*. 1.

There is only one known species of this genus.

Elephas. Briff. quad. 45. Raj. quad. 131. Seba, Mus. i. t. iii. f. 1.—*Elephantis*. Gesn. quad. 377. Aldr. quad. l. i. c. 9. Jonst. quad. 30. t. 7. 8. 9. Edw. av. t. 221. f. 1.—*Elephant*. Sm. Buff. vi. 1. pl. clxiii.—Great Elephant. Penn. hist. of quad. n. 70. Schreber, ii. 60. tab. lxxviii. Br. mus. Ashm. mus. Lever. mus. Hunter's mus. Petr. G. Camper, *Elephantographia*, Lipf. 1723. P. Gilius, nov. desc. Eleph. at the end of Elianus de anim. Lugd. 1565, viii. 497.—525. Fr. Serap. op. de fific. Napol. 1766. v. 1.—62. t. 1.—Its anatomy. Bibl. med. Dublin. 1681.

Inhabits the Torrid Zone, in Asia and Africa.—This wonderful animal is principally found in swampy places, by the sides of rivers: It lives on the bark, leaves, and branches, of young trees and shrubs; being principally destructive to plantains, or the *Musa paradisiaca*, Cocco palms, and the *Guilandina femina*, devouring even the wood of the musa; and feeds voraciously on grain, doing vast damage in corn fields. It is a gregarious animal, remarkably long lived, very docile, and exceedingly sagacious, notwithstanding that the brain is extremely small in proportion to the bulk of the body. The proboscis, which is composed of a great number of cartilaginous rings, is very long, and is capable of extension and contraction in every direction; it is smooth below, and truncated at the extremity, where it is provided with a moveable hook, which serves the purpose of a hand, and with which the animal can lift the smallest objects from the ground with great accuracy; this trunk is an extension of the canals of the nose, and is divided, through its whole length, by a continuation of the septum; by means of this, the animal is delicately sensible of smells; by it, likewise, he carries food and drink to the mouth, sucking up liquids, through its canals, into receptacles within the head, afterwards injecting them into the mouth; this is likewise a chief instrument of offence against enemies, and is so very necessary, that, when the trunk is cut off, the animal unavoidably dies exceedingly afraid of mice, lest, when asleep, they should get through the trunk into the wind.

The male discharges his urine backwards; and the female has to lie on her back in copulation, and goes a year with young. The young sucks the mother by means of its lips applied to the teats, not by the trunk.

This is the largest of all the race of quadrupeds, some having been found which weighed four thousand five hundred pounds. It carries vast loads on the back, sometimes even houses, and is guided by a keeper, named *Cornack* in the east, who rides on the animal's neck. He marches on with a tolerably quick pace, and swims with great dexterity: Is armed, and employed in war, by the Indians; and, of old, was used in the same way by the Romans, being armed with crooked scythes; but, since the invention of gun-powder, this animal has become greatly less proper for the purposes of war. When exceedingly furious, and dangerously ungovernable, they are readily killed by means of a small wound, between the first and second vertebrae of the neck, which, penetrating to the spinal marrow, instantly deprives them of motion. The body is ash coloured, seldom reddish or white, having only a few scattered hairs. The skin is exceedingly thick, hard, and tough, yet may be pierced by a musket ball, and is even sensible to the punctures of flies. The eyes are small; the tusks, which are only in the upper jaw, are stretched out from the mouth to a great length, resembling horns, and are marked with fibrous grains; these are the ivory of the shops, and are often so large that each weighs a hundred and fifty pounds; the ears are very large, broad, long, pendulous, and somewhat notched, or dentated; the head is large and clumsy, and the neck is short; the female has two small dugs near the breast, a little behind the fore legs; the knees, contrary to vulgar opinion, are flexible; the feet are covered with a very tough and thick skin, which may be striped off entire, like the hoof of a horse; from which circumstance the animal might, with no great impropriety, have been arranged under the order of *Belluae*; although, as the feet have the appearance of claws or nails, five on each fore foot, and four on each behind, it seemed more proper to arrange him in this order, more especially as the female has two dugs placed in the axillae, or arm-pits, as they may be called.

The bones of Elephants have very frequently been found under ground in the temperate, nay even in the frigid Zones, and in America. Vide Pallas, Nov.-com. Petrop. xiii. & xvii. Merk, sur les os fossiles d'Elephans et de Rhinoceros, &c. Darmst. 1786, 4. Lettres 1.—3.

2. American Elephant.—*Elephas americanus*.

In America, on the banks of the Ohio, are found, several feet below the surface, in a marshy place called Big-bone-swamp, great numbers of tusks and grinders, supposed by many to belong to the Elephant: But the grinders are totally different, being covered uniformly with enamel, and furnished with a double row of high conic processes, like those of carnivorous animals; whereas those of the Elephant are composed of alternate perpendicular layers of bone and enamel, and are ribbed transversely on their upper surfaces, like those of graminivorous quadrupeds: Hence the species must be entirely different; and Mr Pennant has chosen to suppose that they have belonged to an unknown species of this genus, which he names the American Elephant. Hist. of Quad. n. 71. These teeth and bones are likewise found in Peru and Brasil. Mr Pennant and Dr Gmelin assert, from various authorities, that the fossil bones and teeth, so often found in Siberia, must be referred to the true Elephant; and various hypotheses have been devised, to explain in what manner this inhabitant of the Torrid Zone should have wandered to the sixtieth degree of north latitude for a grave. Where such great authorities are on one side, my feeble voice will scarcely be heard on the other; but I can safely

ly assert, that all the grinders engraved in the supplemental vol. ix. of Smellie's translation of Buffon, and all those which I have seen in various cabinets, under the name of fossil, from America and Asia, exactly resemble those which Mr Pennant attributes to the American species of Elephant, and must, from the circumstances already pointed out, have belonged to an animal not in the least degree congeneric with the elephant. What this animal is, or has been, I pretend not to determine; but the opinion of the great Linnæus, that it is the Morse, or *Trichechus Rosmarus*, is, I think, extremely probable; especially when it is considered that these bones have all been found by the sides of rivers, in places where, in all probability, the sea once flowed, though, by its gradual decrease, they are now become dry land: If not arms of the sea, these may have been vast inland lakes, like those still in America, and other places, which have broken through their lower banks and run out their waters. Many vast valleys, at great distances from the sea, still bear evident marks of this revolution; and even tradition, in some places, as in Cashmere, points out the era. This remarkable circumstance of the conversion of an inland lake into a fertile vale is in no part of the world more evident than in the valley in Virginia, which is bounded at its lower extremity, following the water course, by the Rock bridge; here the waters have dug themselves a subterraneous passage, more than a hundred feet beneath the level of the cataract over which they must formerly have flowed.—T.

XII. WALRUS.—II. *TRICHECHUS* 6.

Has no fore-teeth, when full grown: Has two great tusks, in the upper jaw, which point downwards: Has grinders on each side in both jaws, which are composed of furrowed bones. The body is oblong; the lips are doubled; and the hind legs are stretched backwards *, and, as it were, bound together, forming a kind of tail fitted for swimming.

All the species of this genus inhabit the sea, and feed on sea-weeds, corallines, and testaceous animals, or shell fish, never eating flesh.

I. Morse.—I. *Trichechus Rosmarus*. 1.

The tusks, which extend far out of the mouth from the upper jaw, are distant from each other. Houtt. nat. ii. 7. t. 11. f. 1. Schreber, ii. 262. tab. lxxix.

Odobenus. Syst. nat. ed. x. 38. Briss. quad. 48.—Rosmarus. Jonst. pisc. t. 44. Worm. mus. 289. Olear. mus. 38. t. 23. f. 3. Bonnon. mus. 269. f. 27. Gesn. aquat. 211.—Sea-horse, *Equus marinus*, improperly called *Hippopotamus*. Raj. quad. 191. Ellis, Hudson's Bay, t. 6. f. 3.—Walrofs. Martin's Spitzbergen, 78. t. 1. f. B.—Morse, or Walrus. Sm. Buff. vii. 354. tab. ccl.—Arctic Walrus. Penn. hist. of quad. n. 373. Arct. zool. n. 71. Br. mus. Ashm. mus. Lev. mus.

Inhabits

* This is termed *pedes compedes*, or fettered legs, and takes place in aquatic quadrupeds.—T

Inhabits within and near the Arctic Polar Circle, chiefly at the mouths of rivers, in Spitzbergen, Nova Zembla, Hudson's Bay, the Gulph of St Laurence, the Icy Sea, all along the northern coasts of the Russian empire, both in Europe and Asia, but does not extend to the islands between Kamtschatka and America.—This is a gregarious animal, being found in herds even of some hundreds: They are very shy, and avoid the haunts of mankind; are very fierce, defending themselves against their enemies with great obstinacy, and, if wounded in the water, will attempt to sink the boats of their assailants, either by rising under them, or by striking their great tusks into their sides: They roar very loud, like bulls, and snore while asleep, which they often do in islands of ice, when it is dangerous to approach, as they throw themselves with great impetuosity into the sea when disturbed. The younger animals have two small fore-teeth in the upper jaw; and both young and old have two sharp tusks, very distant from each other, which stand much out of the mouth, pointing directly downwards, and a little bent inwards; these are a very fine grained ivory, and sometimes weigh thirty pounds; they are composed of delicately interwoven fibres, of a very fine white, and not readily becoming yellow, but the nucleus, or inner central part, verges towards a brownish colour; on each side of each jaw there are four small sharp grinders, having a smooth pit, or hollow, worn out of each, near the apex or summit: The lips are very thick, and are garnished with long transparent bristly whiskers, as thick as straws; the nostrils are of a semilunar form; the head is round; the mouth small; and the eyes are small and fiery; the neck is very thick; there are two small orifices to the organ of hearing, without any external ears; all the feet have five toes, which are provided with short claws; the fore legs are loosely articulated with the body, and short; and the hind legs are much extended backwards on a line with the body, standing close together, and serving more as a tail fin, for swimming, than as feet; the tail is very short: The penis of the male is long. The Russians have long been in use to make traces for carriages of the skin, which has of late been employed in France for the same purpose. This animal is very fat, and is much hunted for the sake of the oil, as one Morse will frequently produce half a ton. The skeleton of this animal, thrown on shore by storms, or left in the mud on the banks of rivers, during inundations, by the death of the animal, is in all probability the Mammouth of the Russians. It is sometimes eighteen feet long, and ten or twelve in circumference at the thickest part.

This animal was known to King Alfred of England, so long ago as about the year 890, from the information of Otho the Norwegian, who made a voyage beyond the North Cape of Norway to hunt *Horje-whales*, which have teeth of great value, some of which he brought to that King*.

167

2. Dugon.—2. *Trichechus Dugon*. 3.

The tusks, which extend out of the mouth from the upper jaw, are placed near each other.

Dugon. Sm. Buff. vii. 370. Schreber, ii. 93.—Indian Walrus. Penn. hist. of quad. n 374.

Inhabits the seas lying between the Cape of Good Hope and the Phillippine islands.—This animal, so far as can be known, resembles the Morse very much: The head is, however, more lengthened and narrower; the nostrils are larger, and placed higher; like the former species, there are no tusks in the under jaw, but those in the upper jaw are placed near each other, are bent outwards, and resemble cutting teeth, only that they are near six inches long; there are four grinders on each

* See Hakluyt's Voyage, i. 5.; and Forster's Account of Voy. to the North.—T.

each side in the upper jaw, and three in the lower; these last are distant from the tusks, and are broader than those of the Morfe: The female has two teats on the breast. The chin has a bristly beard; the ears are short; the feet broad; and the legs so short that the belly trails on the ground. When full grown, the animal is six ells in length; the male being rather larger than the female, which has breasts like a woman: It feeds on a green sea moss, or weed, which grows near the shore. The figure, manners, and history, of this animal, are very imperfectly known; but we are informed that its flesh eats like beef.

3. Fish-tailed Walrus.—3. *Trichechus Manatus*. 2.

Has no tusks, and no hind feet. Art. gen. 79. syn. 107.

Of this species the following varieties are noticed by Zoological writers.

α. Lamantin.—2. α. *Trich. Manatus australis*.

Is hairy; having three toes, provided with claws, on the fore paws.

Manatus. Rondel. pisc. 490. Gefn. pisc. 213. Hern. mex. 323. Briff. quad. 49. Cluf. exor. 133. Aldr. pisc. 728. Raj. quad. 193.—Lamantin. Sm. Buff. vii. 374. pl. ccli.—Round-tailed Manati. Penn. hist. of quad. n. 391.

Inhabits the African and American seas, particularly near the mouths of rivers, which they frequently enter, seldom going far from the shore. The Lamantin varies in size from eight to seventeen feet long, is six or seven in circumference, and from five hundred to eight hundred pounds weight: The skin is of a dark or black ash colour; there are nine square shaped grinders on each side in each jaw, which are covered with a glassy crust of enamel; the back bone has fifty joints, or vertebrae: It is a thick, clumsy animal, having no properly distinct neck, as the body continues almost of an equal thickness to the head, which is somewhat of a conical shape, with a cylindrical muzzle and thick fleshy lips, the upper one hanging down at the sides like the chops of a hound; the eyes are very small, not larger than a pea; the orifices leading to the internal ear are exceedingly minute, and there are no external ears; the feet are placed at the shoulders, and consist of three articulations, the foremost being flat, having five complete toes beneath the skin, hardly discernible on the outside, and three or four flat rounded nails externally of a shining reddish brown colour; the tail is long, horizontal, broad, flat, and rounded at the end, thick in the middle, and thinner at the edges: The female has two teats, placed near the arm-pits. This animal never comes on shore, but frequents the mouths of large rivers, browsing on the grass which grows close to the water. There seems to be two varieties, differing considerably in size: The larger frequents the seas near the mouths of large rivers; and the smaller is found higher up the same rivers, and in inland fresh water lakes, but never goes to the sea.

We are told that this animal is often tamed by the native inhabitants of America, and that it delights in music; hence, according to some authors, it is probably the Delphinus, or Dolphin, of the ancients; and some believe, that what has been written concerning Mermaids and Sirens must be referred to this animal. It has a voracious appetite, and is perpetually eating: It is monogamous, or lives in families of one male, one female, a half grown, and a very small young one; copulates in the spring, the female at first flying in various playful circles, and then throwing herself on her back to receive the male: When pasturing on the aquatic plants, the back is often above water; and, as the

skin

skin is full of a species of louse, numbers of sea fowls perch on them to pick out the insects: They bellow like bulls: Their sight is very weak, but their hearing extremely acute; the fore feet are palmed and fin-shaped, almost like those of a sea turtle; and instead of hind feet they have a horizontal tail; they have no external ears; the nostrils are distinct, and at a distance from each other; the females have two teats about the breast; the upper lip is full of sharp, prickly, rigid bristles. This animal has great affinity to the Whale and Seal tribes. The flesh is very good eating.

169

β . Manati.—2. β . *Trich. Manatus borealis*.

Has no hair, and the feet have neither toes nor nails.

Manati, called by the Ruffians Morškuia Korowa. Steller, Nov. com. Petrop. ii. 294. Schreber, ii. 95. Hist. of Kamtschatka, 132. Whale-tailed Manati. Penn. hist. of quad. n. 390. Arctic zool. n. 81.

Inhabits the north-west coast of America, the north-east of Asia, and the islands which lie between these two coasts.—This animal very often enters the mouths of the rivers; is sometimes twenty-three feet long, and weighs eight thousand pounds; the skin, while wet, is of a brown colour, but becomes black when dry. Instead of grinders, this species has, on each side of each jaw, a large rugged bone. The back bone has sixty vertebrae or joints: The body is very clumsy, and much deformed; its circumference at the shoulders is twelve feet, at the belly twenty, and near the tail only four; the neck is near seven feet round, and the head only thirty-one inches; the head is very slouching, oblong, and almost square, with a small mouth, double lips, which are full of strong bristles that serve the purpose of fore teeth to cut the sea plants on which they feed; near the junction of the jaws, the inside of the mouth is full of white tubular bristles, which are set in such a manner as to prevent the food running out along with the water; the eyes are very small, not larger than those of a sheep; and the orifices which lead to the internal ears are very minute; near the shoulders are two feet, or rather fins, about two feet two inches long, concave beneath, and covered with hard bristles, having neither toes nor nails; the tail is thick, strong, and horizontal, ending in a stiff black fin, like whalebone, much split at the fore part, and slightly forked; the skin is very thick, black, full of inequalities like the bark of a tree, so hard as scarcely to be cut with an ax, and is destitute of hair.

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γ . Sea-ape.—*Trich. Manatus Siren*.

Has sharp erect ears. Penn. hist. of quad. n. 392. Arctic zool. i. 181.

I have placed the Sea-ape in this place on the authority of Mr Pennant, though it seems rather a Seal. This animal was seen by Steller on the north-west coast of America; was five feet long, with a head resembling that of a dog, having sharp erect ears, large eyes, and a sort of beard on both lips: The body was thick, round, and tapering; thickest near the head, and smallest at the tail, which was divided into two unequal lobes, the upper one longer than the other, and neither feet nor paws could be observed. This creature was full of frolic and monkey tricks, swam round the ship, looking at it with great amazement, sometimes raising its body a third part out of the water, and standing erect for a considerable time; at other times dived, and brought up a sea plant like a gourd, which it tossed about, playing numberless fantastic tricks. From this animal, more probably than from either the Lamantin or Manati, the fables concerning Sirens and Mermaids have taken their rise.—T.

III. F E R Æ.

Have six sharp-pointed fore-teeth in the upper jaw;
and single tusks on each side in both jaws.

XIII. SEAL.—12. *PHOCA*. 11.

Has six sharp-pointed fore-teeth in the upper jaw, which are parallel to each other, the two outermost being larger than the rest; and four rather blunt fore-teeth in the lower jaw, which are parallel to each other, and equal in their size: The tusks, of which there is one on each side in both jaws, are twice the length of the fore-teeth, strongly made, and sharp-pointed; of these the upper are distant from the fore-teeth, and the under from the grinders: The grinders, of which there are five on each side above and six below, are close set, and have three knobs on their grinding surfaces: Has no external ears, and the hind legs are stretched much backwards, and, as it were, bound together, or fettered.

The Seals are a dirty, inquisitive race, courageous and quarrelsome among themselves, yet may be tamed. They are polygamous, one male having many females. Their flesh is juicy and delicate eating; and their fat and hides are useful. They inhabit the waters, and swim readily, mostly under water. They walk, or rather crawl, with great difficulty, when on land, on account of their fore paws being retracted, or much set backwards, and the hind legs being closely united. They live on fish, and other marine productions. The Sea-ape, of Pennant, appears to belong to this genus.

171 1. Urfine Seal.—1. *Phoca ursina*. 1.

Has external ears. Schreber, iii. 289. tab. lxxxii.

Ursus marinus. Steller, Nov. act. Petro. ii. 331. t. 15. Brissl. quad. 166.—Sea-cat. Hist. of Kamtschatka, 123. Muller. exped. 59.—Urfine Seal. Penn. hist. of quad. n. 387. Arct. zool. n. 79.

Inhabits the sea coasts near Kamtschatka, and in that latitude both in Asia and America, particularly in Bering's Island; is found also in New Zealand, Staten-land, New Georgia, and Falkland's Islands.—This species swims with great impetuosity; is polygamous, one male living in family with many females and their young ones, sometimes in one flock amounting to a hundred and twenty; copulates on shore, the female lying on her back for the purpose: It scarcely fears the approach of mankind, and will even bite a stone, if thrown at it. The old males, which are destitute of females, and become very fat, live apart from the rest. Each animal has a particular stone, which serves for its bed, and which it never deserts. The males are exceedingly fierce and quarrelsome, fighting bitterly on account of their females, and for their particular stations: These battles are always single combats, and fair play is preserved among them: When one is beaten another comes up to his assistance and takes his place, and so on in succession, never two against one, until the whole flock of a particular landing place gets involved in a general battle. When grieved, they shed great floods of tears.

172

2. Bottle-nosed Seal—2. *Phoca leonina*. 2.

Of a brown colour: The fore part of the head, or snout, of the male, has a crest or long projection. Schreber, iii. 297. tab. lxxxiii.

Sea-lion. Anson's voy. tab. 100. Ellis's Hudson's Bay, tab. 6. f. 4. Sm. Buff. vii. 347.—Sea-wolf, Loup marin. Pernetty, voy. ii. 40. t. 11. f. 1.—Bottle-nosed Seal. Penn. hist. of quad. n. 388.

Inhabits the shores towards the South Pole, the coast of Chili, New Zealand, Juan Fernandez, Falkland's Islands, and New Georgia.—The male has a hairy projection at the base of the snout, which hangs five or six inches below the lower jaw; the upper part of this consists of a loose wrinkled skin, beginning on the fore-head, which the animal can blow up into the appearance of a crest, whilst he eludes the blows of a cudgel. The female has a blunt nose, which is tuberos or warty at the root. The two fore-teeth, in the lower jaw, stand out a little way from the mouth; the eyes are large; and the mouth is surrounded with large coarse whiskers, the bristles of which are white, and surrounded with reddish rings; all the feet are webbed, having five toes both before and behind, which are furnished with flat, oblong nails, somewhat pointed at the extremities; the hind feet are much stretched backwards, and fettered, forming a flat horizontal tail, like two great bifurcated, or two-lobed, fins, the outermost toe being thicker than the rest; between the hind legs is a very small tail, only two inches long. The animals of this species swim in great flocks, and the males fight desperately with each other on account of the females: When sleeping on shore, they set centinels round the flock, to give alarm in case of danger. The male of this species is often twenty feet long, and fifteen feet in circumference; the female is only twelve feet long, and seven or eight feet round: The skin is very thick, and is covered with dun or rust coloured hair; which, on the neck of the male, is a little longer than on the rest of the body: They are of a very lethargic disposition, and fond of wallowing in miry places, tumbling over each other like swine; they sometimes grunt like hogs, and at other times snort like horses; are very lazy, fat, and inactive, feeding on fish and small seals; but grow very lean during the breeding season, at which time they abstain almost entirely from food for two months. The flesh is eaten by sailors, who, long confined to salt meat, think it is tolerable beef.

173

3. Maned Seal.—3. *Phoca jubata*. 4.

The neck of the male is covered with a long flowing mane. Schreber, iii. 300. tab. lxxxiii. B.

Seal, having a mane behind the head. Molin. hist. nat. Chili, book iv. p. 250.—Sea-lion, *Leo marinus*, and Lion marin. Steller, Nov. act. Petrop. ii. 360. Pernetty, voy. ii. 47. t. 10. Cook's voy. ii. 203. Forster's voy. ii. 513.—Leonine Seal. Penn. hist. of quad. n. 389. Arct. zool. n. 80.

Inhabits the sea on the coasts of the northern Pacific Ocean, the west coast of America, Falkland's Islands, Patagonia, Kamtschatka, and, more especially, the islands which lie between Kamtschatka and America, and the Kurile islands.—The colour of the male is reddish, the young animals being more dusky, and the females brighter in colour. It is larger than the last species, as the males sometimes are twenty-five feet long, and weigh fifteen or sixteen hundred pounds. The voice is like the bellowing of a bull: The head is large, having a short nose, somewhat turned up at the end, and large, long, thick, and strong whiskers; the eyes are large: On the neck and shoulders of the male is a great mane of coarse, long, flowing hair; the rest of the body is covered with a short, smooth, glossy fur; the fore feet are black, and resemble flat leather-like fins, without any appearance of toes; the hind feet are very broad, having very small nails, with a long, narrow, stripe of membrane beyond each; the tail is very short; the hinder parts are very large, much swelled, and excessively fat. This species lives in families, each male having many females; they have a fierce look, but fly the approach of man; the males are very lazy, and exceedingly quarrelsome about their females and resting places; they fast in breeding time for three or four months, swallowing great quantities of stones to keep their stomachs distended.

174

4. Common Seal.—4. *Phoca vitulina*. 3.

Has no external ears; the neck is smooth; and the body is of a dark brown colour. Schreber, iii. 303. tab. lxxxiv.

Phoca, f. *Vitulus marinus*, Seal, Sea-calf, Phoque, Veau marin, Loup de mer. Gefn. aquat. 702. Aldr. pisc. 722. Jonst. pisc. 44. Dodart, 191. Raj. quad. 189. Steller, Nov. act. Petrop. ii. 290. Sm. Buff. vii. 330. pl. ccxlviii. Rondel. pisc. 458. Belon, poiss. 25. f. 26. Penn. hist. of quad. n. 375. Arct. zool. n. 72. Oedman, act. Stock. nov. an. 1784. trim. i. n. 10.—The anatomy, E. N. C. d. 1. a. 9. obf. 98. d. 3. a. 7. app. 15.

Inhabits the seas near the coast in most parts of the globe, chiefly in the north, near the Arctic Circle, and in the lower parts of South America.—It sleeps generally on shore, on a stone standing a considerable height above the water. The head and nose are flat, with large waved whiskers, and oblong nostrils; the eyes are large, having a spherical crystalline humour, as in fishes, and a membrana nictitans; the tongue is cloven; the toes have strong sharp claws; and the foramen ovale of the heart remains open, even in adults; the body is covered with thick, short hair, lying smooth; and is of various colours in different parts of the world, constituting, perhaps, distinct varieties of the species: It is dusky, ash coloured, white or pearl coloured, grey, black, or variously spotted, or brindled with white or with yellow.

The females, in autumn, bring forth mostly two young at a time, which are at first white and woolly; they suckle these by means of teats which are situated on the belly, for six or seven weeks,

in caverns, or hollow places of rocks, and then take them to sea. This animal cannot remain long below water, but must rise often to breathe: It sleeps, in the summer, on rocks or sand banks, precipitating itself, when surprised, into the sea; or, if at too great a distance to get there, it scrambles along, flinging up the sand and gravel very forcibly with the hind feet, making a piteous moaning; and, if overtaken, makes a vigorous defence with the feet and teeth: Is easily killed by a blow on the nose, but bears numerous wounds on other parts: Swims with great strength and swiftness, and sports without fear round ships and boats; is of a gentle nature, very docile, and may be tamed, and taught to obey a keeper almost like a dog: It never goes far from the land; feeds on all kinds of fish, and gets enormously fat during the time that herrings are on the coast. The flesh is very good food; the skin is useful, making good shoe leather, and the oil serves many valuable purposes.

Besides the common seal, on all the coasts of the north of Europe, including the British islands, the following varieties are enumerated in Dr Gmelin's edition of the *Systema Naturae*.

175 β. Bothnic common Seal.—*Ph. vit. botnica*. 3. β.

Differs from the preceding variety by having a broader nose, and longer nails or claws, and being of a darker colour. Linn. faun. Suec. p. 2.

Inhabits the Gulph of Bothnia, in the Baltic.

176 γ. Siberian common Seal.—*Ph. vit. sibirica*. 3. γ.

Is of a silver white colour.

Inhabits the lakes Baikal and Orom, in Siberia.

177 δ. Caspian common Seal.—*Ph. vit. caspica*. 3. δ.

Is of a mixed or mottled colour.

Inhabits the Caspian, and the rivers which fall into that sea.

178 5. Hooded Seal.—5. *Phoca monachus*. 5.

Has no external ears; only four cutting teeth in each jaw; the fore paws are not divided, and the hinder paws have no nails.

Herman. Act. nat. scrut. Berolin. iv. 456. t. xii. xiii.—Mediterranean Seal. Penn. hist. of quad. n. 376.

Inhabits the Mediterranean, chiefly on the coast of Dalmatia.—When this animal is placed on its back, the skin of the neck folds into the similitude of a Monk's hood. The head is small, having a longer neck than in the common species; the orifices of the ears are very small; the hair is short, rude, and of a dusky colour, spotted with ash colour, and having a tawny spot above the navel: The whole body is eight feet seven inches long, and five feet round.

179

6. Swartfide.—6. *Phoca groenlandica*. 6.

The head is smooth, and has no external ears; the body is grey, with a black moon-like mark on the side. Erxleben, Syft. mam. 588.

Swartfide. Egede Greenl. fig. p. 62.—Attarfoak. Crantz Groenl. 163.—Harp Seal. Penn. hist. of quad. n. 385. pl. li. Arct. zool. n. 77.—Krylatca, of the Russians. Lepechin, act. Petrop. part i. 259. tab. vi. vii.

Inhabits Greenland, Newfoundland, Iceland, the White Sea, the Frozen Ocean, and as far as Kamtschatka.—The head is black and pointed, having short whiskers on both lips, and on the nose; the body is thick, of a whitish colour; and, when the animal is five years old, it gets an irregular semilunar black mark on each side, the horns of the crescent pointing upwards: Both the fore and hind paws have distinct nails; and there is a small short horizontal tail between the hind legs: It is nine feet long when full grown. This animal is called *Harp*, or *Heart Seal* by the British fishers, who call the black mark its *saddle*. It is much esteemed on account of the goodness of its skin, and large produce of oil.

180

β. Bedlemer.—*Phoca groenlandica nigra*.

This is a blackish variety, which is supposed by the fishers to be a young animal of the Swartfide, or Harp species, last described. Penn. hist. of quad. p. 525.

Inhabits the Greenland and other northern seas.

181

7. Neitfek.—7. *Phoca hispida*. 7.

The head is smooth, and has no external ears; the body is of a pale brown colour, having rough bristly hair. Erxleben, mam. 589. Schreber, iii. 312. tab. lxxxvi.

Phoca foetida, or Stinking Seal. Muller. zool. 8.—Neitfek. Crantz Groenl. 164.—Rough Seal. Penn. hist. of quad. n. 383. Arct. zool. n. 74.

Inhabits Greenland and Labradore.—Has a short nose, a short round head, and teeth like the Common Seal; the body is of an elliptical form, and very fat almost to the hind feet; the hair is long, erect, and close set, having curled wool intermixed: It is of a dusky colour, streaked with white; sometimes white, with a dusky line along the back; never exceeds four feet long; seldom goes out to sea, but lives on the fixed ice near the shore, where it couples in June, and brings forth in January; feeds on shrimps and small fish; sleeps often on the surface of the water, and hence frequently falls a prey to eagles: The flesh is red, fetid, and nauseous, especially that of the males.

182

β. Newfoundland Seal.—*Phoca hispida quadrata*.

Is of a large size, and has a rough hairy fur.

Square Phipper. Arct. zool. i. 161.

Inhabits Newfoundland.—Seems allied to the former by its coat, which resembles that of a Water Dog, but is vastly larger, weighing five hundred pounds.

183

8. Klapmus.—8. *Phoca cristata*. 8.

Has a crest on the fore part of the head; and the body is of a grey colour. Erxleben, mam. 590.

Klap-myffen. Egede Groenl. 62. t. 6.—Bladrufelus. Olaffen, Hl. i. 283.—Neitfer-foak. Crantz Groenl. i. 164.—Hooded Seal. Penn. hist. of quad. n. 384. Arct. zool. n. 76.

Inhabits the fouth coasts of Greenland, the west of Iceland, and Newfoundland.—Is of a large size, having the skin covered with a thick coat of black wool interspersed with white hairs; has a strong folded skin on the fore-head, which falls over the eyes and nose, protecting it from stones and sand in stormy weather. The hunters alledge that it is necessary to remove this skin before they are able to kill the animal.

184

9. Great Seal.—9. *Phoca barbata*. 9.

The head is smooth, and without any external ears; and the body is blackish. Muller. zool. 8.

Utselur, Wetrafelur. Olaff. Hl. i. 260.—Utsuk. Crantz Groenl. i. 165.—Lachtak. Steller, Nov. com. Petrop. ii. 290.—Sea-calf. Parsons in Phil. Trans. ix. 74. tab. v.—Great Seal. Penn. hist. of quad. n. 382. Arct. zool. n. 73.—Grand Phoque, or Large Seal of the northern ocean. Sm. Buff. vii. p. 342.

Inhabits the coasts of Scotland, the south of Greenland, and is common about Iceland.—In November or December, the females bring forth generally two young ones, which are of a white colour: In adults, the skin is thick, and is covered with blackish hair. This animal resembles the Common Seal, but is much larger, as that does not exceed six feet long, while the present species grows to twice that length.

185

10. Little Seal.—*Phoca pusilla*.

The head is smooth, and has the rudiments of external ears; the body is brown. Schreber, iii. 314. tab. lxxxv.

Vitulus marinus. Belon. aquat. 19. t. 21.—Vitulus Mediterraneus. Rondel. pisc. 453.—Veah marin, or Sea-calf. Dampier, voy. i. 116.—Loup marin, or Sea-wolf. Ulloa, voy. ii. 2. ? 26. ?—Vitello marino picciolo. Aleff. quad. iv. t. 171.—Petite phoque, or Small Seal. Sm. Buff. vii. 337. pl. ccxlix. Little Seal. Penn. hist. of quad. n. 386.

Inhabits the coasts of the Atlantic, the Mediterranean, Chili, and Juan Fernandez.—This is the *Φωκία* of Aristotle and *Vitulus marinus* of Pliny. The four middle cutting teeth of the upper jaw have each two points, and the two middle cutting teeth of the lower jaw are slightly divided into three points; the webs of the feet extend far beyond the nails; the hair is smooth, longer than in the Common Seal, of a dusky colour on the head and back, and brownish on the under parts of the body. The body and head measure about two feet two inches in length.

186

11. Chilese Seal.—*Phoca chilensis*.

Has a longish snout, and longish external ears. Syft. nat. ed. Gmel. 9. 11. sp. 9. note.

Phoca porcina. Molin. hist. nat. Chili, iv. 248.

Inhabits the coasts of Chili and Juan Fernandez.—Dr Gmelin is uncertain whether this may not be a variety of the little Seal, last described: It differs, however, by the marks in the specific character, and by having five toes to each foot.—T.

187

12. Long-necked Seal.—*Phoca mutica*.

Has a slender body, and no claws on the fore feet. Grew's mus. 95.

Long-necked Seal. Penn. hist. of quad. n. 377. Parsons in Phil. Transf. xlvii. tab. vi.

Its place and history are unknown.—The length, from the nose to the fore legs, is as much as from thence to the tail. The fore feet resemble fins.

188

13. Falkland Seal.—*Phoca australis*.

Has short pointed external ears. Penn. hist. of quad. n. 378. Brit. Mus.

Inhabits the Falkland isles, and probably about Juan Fernandez.—Is of a cinereous colour, the hairs being tipped with dirty white; the nose is short, and beset with strong black bristles; the external ears are short, narrow, and pointed; the upper fore-teeth are transversely furrowed, and the lower longitudinally; on each side of the tusks is a smaller secondary tooth; the grinders are conical, having a small process on one side of each, near the base: The fore feet have no claws, but five distinct toes may be felt within the skin, which extends far beyond their extremities; the hind paws have each four long straight claws, and the skin stretches far beyond them: The head and body measure about four feet in length.

189

14. Parsons Seal.—*Phoca testudo*.

The head resembles that of a Tortoise, having a slender neck; and the feet are like those of the Common Seal.

Tortoise-headed Seal. Penn. hist. of quad. n. 379.

This species or variety is very little known. Mr Pennant says that it is described by Dr Parsons, but does not inform us where to find his description, and that it is found on the shores of many parts of Europe.

190

15. Harnassed Seal.—*Phoca fasciata*.

Is of a blackish colour, and marked across the neck, along the sides, and across the haunches, with yellow stripes resembling harnesses.

Ribbon Seal. Penn. hist. of quad. n. 380. pl. at p. 513. Arct. zool. n. 78.

Inhabits

Inhabits the Kurile islands.—The skin is covered with very short, fine, glossy and bristly hair, of an uniformly blackish colour; and is marked along the sides, and across the neck and crupper, with regular narrow stripes of a yellow colour, resembling a ribbon or harness laid on by art; the stripe on each side is a small section of a large circle, the points standing downwards; that crosses the shoulders is two portions of circles pointing forwards and meeting on the middle of the back; that across the rump is in a regularly waved form, and has two obliquely diverging processes, apparently intended to run down the hind legs. The size is unknown, as the description was taken from a squared skin received by Dr. Pallas from the Kurile islands.

191

16. Woolly Seal.—*Phoca laniger*.

Has four cutting teeth in each jaw; a thick upper lip, with long thick whiskers; and soft uneven fur.

Phoca leporina. Lepechin, act. Petrop. part i. 264. tab. viii. ix.—Leporine Seal. Penn. hist. of quad. n. 381. Arct. zool. n. 75.

Inhabits the White Sea, the coast of Iceland, and the Frozen Ocean from Spitsbergen to Tschuk-koinofs, or the north-east extremity of Asia.—The head is long, with a thick upper lip, having long whiskers, so that the animal seems bearded; the fur is soft, upright, interwoven, and like that of a hare. This species has nails both on the fore and hind feet; is six feet and a half long, and five feet two inches round.

192

17. Speckled Seal.—*Phoca punctata*.

Is elegantly speckled all over the body, head, and limbs. Penn. hist. of quad. p. 523.

Inhabits the seas about Kamtschatka and the Kurile islands.

193

18. Spotted Seal.—*Phoca maculata*.

The body is spotted with brown. Penn. hist. of quad. p. 523.

Inhabits the coasts about the Kurile islands.—This species is very scarce.

194

19. Black Seal.—*Phoca nigra*.

Has a peculiar conformation of the hind legs. Penn. hist. of quad. p. 523.

Inhabits the coast about the Kurile islands.—This and the two last species are mentioned by Mr Pennant as being obscurely described in the manuscripts of Steller. What the peculiarity in the conformation of the hind legs, in the Black Seal, consists of, is not said.

XIV. DOG.—13. *CANIS*.

Has six cutting teeth in each jaw; the outermost of those above are longer, and at some distance from the rest; the intermediate ones are lobed; the outer ones in the lower jaw are likewise lobed: Has one curved tusk on each side in both jaws; six grinders in the upper, and seven in the lower jaw on each side, being more than in any other genus of the order.

This genus is naturally rapacious and greedy; bites very hard, and tears what it bites; it is very swift, and fitted for the chase, but does not climb trees: The head is in general flat on the crown, with a narrow lengthened visage and snout; the trunk of the body is thickest in its fore part, or at the chest; the fore feet have five toes, except the *Hyaenas*, which have only four, and the hind feet only four*; while the genera of Cat, Seal, Bear, and Weasel, have five toes on all the feet: The male penis has a large knob at its middle: The female brings forth a considerable number in each litter, and has generally ten paps, of which four are placed on the breast and six on the belly.

1. Faithful Dog.—1. *Canis familiaris*. 1.

The tail bends upwards, and towards the left side. Faun. Suec. 5. Amoen. acad. iv. 43. t. 1. f. 1.

Canis. Gefner, quad. 91. Aldr. dig. 482. Jonst. quad. 122. Raj. quad. 176.—Faithful Dog. Penn. hist. of quad. n. 136. Sm. Buff. iv. 1.

Inhabits chiefly in society with man, though often found in a wild state; it is uncertain whether the species be native in the East Indies.—This species is universally attached to mankind. It feeds on flesh, dead bodies, and farinaceous vegetables, refusing greens, and even digests bones: When sick, it eats some kind of grass which serves as an emetic; drinks by lapping with the tongue; dungs on a stone, and urines sideways, holding up the leg, the female squatting; smells to the anus of other dogs; is very delicate in the sense of smelling; runs obliquely, resting on the toes in walking; scarcely sweats when warm, but lolls out the tongue, and foams at the mouth; when about to lie down, often goes round the place; and when asleep has a very quick sense of hearing, and frequently seems to dream: The female, when in heat, receives the embraces of various males, who flock about her, and are very quarrelsome among themselves, while she is equally ill humoured, biting and snarling at all around her; she goes sixty-three days with young, and litters from four to eight puppies; of which the males generally resemble the father, and the females the mother.

This

* In a domestic state, many varieties of the Dog have five toes on the hind feet, the fifth being much smaller than the rest, very loose, and placed far up the inside of the leg; this is usually called the *Dew-claw*.—T.

This is the most faithful of all animals, and perhaps the only one which is really attached to man, being hardly ever found wild, except in places where they have lost their masters, and had no opportunity of finding others: It fawns at the approach of its master, and will not allow any one to strike him; runs before on a journey, and, on coming to a division of the road, stops, and looks back, as if asking which to choose; is very docile, and may be taught to seek for any thing that is lost; is very watchful by night, and gives notice of the approach of strangers, and guards faithfully any thing committed to its charge; drives cattle home from the field, and is employed to keep flocks and herds within due bounds, and to protect them from the attacks of wild beasts; points out game to the sportsman, by means of its acute sense of smelling, creeping with great caution to spring upon the game, and brings it when killed to its master, without destroying any; is employed in France, and some other countries, to turn spits; in Siberia is made to draw sledges; begs when his master is at table; and, when it has stolen any thing, slinks away, flouching its tail between the hind legs; eats enviously with oblique eyes; and is always desirous of domineering over its fellows; is the enemy of all beggars, and often attacks strangers without any provocation; will lick wounds, and often by so doing relieves ulcers and the gout; howls at certain notes in music, and sometimes urines on hearing them; bites a stone when flung at it; grows sick at the approach of storms; is often afflicted with the *Tænia*, or tape-worm, in its bowels; sometimes becomes mad, which disorder it communicates to its kind, to other animals, and to man, by biting; makes a violent hollowing when empyreumatic oils are rubbed on the tail; is often infected with gonorrhoea. Dogs are banished from their houses, as unclean, by the Mahometans, who notwithstanding endow hospitals for their maintenance; is the victim of anatomists, for demonstrating the circulation of the blood, the lacteal vessels, and for experiments on transfusion, cutting of nerves, and other cruel purposes; but has been made an useful martyr by some, for discovering the effects of remedies against poison.

The top of the head is flat, and has a projecting longitudinal ridge; the edges of the lower lips, at the sides, are divided into dentated, or tooth-like, projections, which are concealed by the upper lips; has five or six rows of whiskers on the snout; the upper margin of the external ear is reflected; the posterior one has two lobes, and the anterior three; the nostrils are in form of a semilunar furrow turned outwards at the lower end; the face usually has seven hairy warts; and the fur has eight ridges or whorles, on the neck, the breast, the fore legs, the belly, the eyes, the loins, the ears, and near the arms: The female has ten paps, of which four are on the breast: The feet have small membranes connecting the roots of the toes with each other, or are called *sub-palmated*.

This animal is subject to more varieties than any other: Each of these will reproduce, and, mixing with others, produce varieties almost without end; yet certain kinds are more numerous and more permanent than others, perhaps from their usefulness, having more attention paid to their breed. It is perhaps impossible to enumerate or describe all the varieties, but the following catalogue includes the most remarkable and best known. Various conjectures are formed concerning the original or parent stock; some deriving all dogs from the Sheep-dog, and supposing that, by the influence of climate, and the crossing of breeds with the Shakal, Wolf, Fox, and Hyaena, all the forms and sizes have been produced. See Smellie's translation of Buffon, iv. p. 1. and plates from xxiv. to xlv. inclusive.

α. Shepherd's Dog.—*C. domesticus*.

Has erect ears, and the tail is woolly underneath.

Canis ōryzoides, five domesticus. Raj. quad. 177. n. 8. Sm. Buff. pl. xxvii.

196

β. Pomeranian Dog.—*C. pomeranus*.

Has long hairs on the head, erect ears, and the tail is much curved upwards on the rump.

Chien-loup, Wolf-Dog, or Pomeranian Dog. Sm. Buff. iv. pl. xxviii.

197

γ. Siberian Dog.—*C. sibiricus*.

Has erect ears, a curled up tail, and the hair on the whole body is long.

Chien de Siberie, or Siberian Dog. Sm. Buff. iv. pl. xxix.

198

δ. Iceland Dog.—*C. islandicus*.

The ears are erect, with pendulous points; and the hair is universally long, except on the snout, which is short.

Fiaar-hund. Olaff. Isl. l. 30.—Chien d'Islande, Iceland Dog. Sm. Buff. iv. pl. xxx.

199

ε. Great Water-Dog.—*C. aquaticus major*.

The hair is long and curled, like the fleece of a sheep.

Canis aquaticus sagax, or Sagacious Water-Dog. Aldr. dig. 556. Gefn. quad. 256. Raj. fyn. 177. n. 6.—Grand barbet, or Great Water-Dog. Sm. Buff. iv. pl. xxxvi.—Budel. Redinger, t. 18.

200

ζ. Lesser Water-Dog.—*Canis aquaticus minor*.

Is of a small size, with long curly hair, which, about the ears, is longer, and hangs downwards.

Petit barbet, or Small Water-Dog. Sm. Buff. iv. pl. xxxvii. lower fig.

201

η. Pyrame.—*Canis brevipilis*.

Has a small rounded head, with a short snout, and the tail is turned up on the back.

Canis parvus melitæus, or Small Maltese Dog, with shorter hair. Aldr. dig. 541.—Gredin, or King Charles's Dog. Sm. Buff. iv. pl. xxxviii. fig. 1.—Pyrame, of a black colour, with flame coloured spots. Sm. Buff. iv. pl. xxxviii. fig. 2.—King Charles's Spaniel. Penn. hist. of quad. n. 136. iii. α.—Pyrame. Penn. hist. of quad. n. 136. iii. β.

Dr Gmelin has evidently confounded two distinct varieties of the small cocking Spaniel in this place: 1st, The King Charles Spaniel is entirely black, and has a black palate: 2d, The Pyrame is likewise black, but is marked on the legs, and above each eye, with red or flame colour.—T.

202

θ. Spaniel.—*Canis extrarius*.

Has long pendulous woolly ears.

Canis hispanicus, or Spanish Dog, with hanging ears. Aldr. dig. 561. 562.—Epagneul, or Spaniel. Sm. Buff. iv. pl. xxxvii. fig. 1.

203

1. Shock Dog.—*Canis melitæus*.

Is about the size of a squirrel, having very long soft silky hair all over the body.

Canis melitæus potius, or Hairy Maltese Dog. Aldr. dig. 542. Raj. quad. 177. n. 9.—Bichon, or Shock Dog. Sm. Buff. iv. pl. xxxix. fig. 1.

204

2. Lion Dog.—*Canis leoninus*.

Is exceedingly small, with long hair, like the foregoing, on the fore part of the body; that on the hind parts being shorter and smooth.

Chien-Lion, or Lion Dog. Sm. Buff. iv. pl. xxxix. fig. 2.

205

3. Little Danish Dog.—*Canis variegatus*.

Has small, half-pendulous ears, a small pointed nose, and thin legs.

Petit danois, or Small Danish Dog. Sm. Buff. ix. pl. xl. fig. 1.

206

4. Bastard Pug Dog.—*C. hybridus*.

Has small, half pendulous ears, and a thick flattish nose.

Roquet, or Bastard Pug Dog. Sm. Buff. iv. pl. xl. fig. 2.

Dr Gmelin thinks that this variety is perhaps produced by a cross between the Little Danish Dog, *var.* 3. and the Pug Dog, *var.* 5.?

207

5. Pug Dog.—*Canis fricator*.

The nose is crooked upwards, the ears are pendulous, and the body square built.

Doguin, or Pug Dog. Sm. Buff. iv. pl. xliii.—Cane muffolo. Alep. quad. iii. t. 103.—Pug Dog. Penn. hist. of quad. n. 136. v. 3.

This variety has a resemblance to the Bull Dog, but is much smaller, and entirely wants his savage ferocity. Of this there are two sub-varieties, viz.

a. The Artois Dog, of Buffon, produced between the Pug Dog and Bastard Pug Dog.

b. The Alicant Dog, of Buffon, produced between the Pug Dog and Spaniel.

208

6. Bull Dog.—*Canis Molossus*.

Is as large as a wolf, having the sides of the lips very pendulous, and the body very strong and robust.

Canis sagax fanguinarius, or Sagacious sanguinary Dog. Gefner, quad. 251.—Dogue, or Bull Dog. Sm. Buff. iv. pl. xlii. Penn. hist. of quad. n. 136. v. 4.—Baerenbeiffer. Ridinger, t. 3.

The nose of this variety is short, and the under jaw is longer than the upper; this kind is exceedingly fierce and cruel; attacks without warning, but with little judgment, and never quits its hold. It is peculiar almost to England for baiting bulls, which practice, and consequently the kind of Dog, is now much less frequent than formerly. There are several varieties of this in size and colour.

209 o. Mastiff.—*Canis anglicus*.

Of very large size, having a very robust body, and the lips are pendulous at the sides, or chops.

Canis bellieofus anglicus. Aldr. dig. 559.—*Canis mastivus*. Raj. quad. 176. n. 1.—Mastiff. Penn. hist. of quad. n. 136. iv. d. Sm. Buff. iv. pl. xlv.—Englische Docke. Ridinger, t. 1. 2.

Is very thick and strongly made, having a large head, and great lips, which hang down on each side. This Dog is peculiar to England, and grows to a great size, being used principally as a watch Dog, which duty he fulfils with great fidelity, and even judgment: Some will permit a stranger to come into the yard, or place which he is appointed to guard, and will go peaceably along with him through every part of it, so long as he touches nothing, but the moment he attempts to meddle with any of the goods, or endeavours to leave the place, he informs him, first by gentle growling, or, if that is ineffectual, by harsher means, that he must neither do mischief nor go away; and never uses violence unless resisted; will even, in this case, seize the person, throw him down, and hold him there for hours, or until relieved, without biting.

210 π. German Hound.—*Canis sagax*.

Has pendulous ears, and a spurious toe, usually called a *dew-claw*, on each hind foot.

Teutscher Jagdhund. Ridinger, T. v. two figs. at the right hand.

211 ρ. Hound.—*Canis gallicus*.

Is of a whitish ground colour; has pendulous ears, and a dew-claw on each hind foot.

Canis sagax venatorius, or Sagacious hunting Dog. Raj. quad. 174. n. 4.—Chien courant, or Hound. Sm. Buff. iv. pl. xxxi. Penn. hist. of quad. n. 136. ii.—Französischer, and Englischer Parforcehund. Ridinger, T. v. two figs. at the left, and T. vi.

212 σ. Blood-hound.—*Canis scoticus*.

Canis sagax scoticus, or Sagacious Scotch Dog. Gefn. quad. 250.—Blood-hound. Penn. hist. of quad. n. 136. ii. Raj. quad. 174.—Schweis-hund. Ridinger, T. x.

213 τ. *Canis venaticus*.

Leit-hund. Ridinger, T. iv.—I am uncertain what particular variety of Hound is here meant, as no description is given by Dr Gmelin.—T.

214

v. Pointer.—*Canis avicularis*.

The tail is short, and has the appearance of having been cut.

Canis sagax panterinus, or Sagacious Dog, spotted like a panther, for catching quails. Ald. dig. 535.—Pointing Dog, or Field Spaniel; *Canis aviarius*, seu *hispanicus campestris*. Raj. quad. 177. n. 5.—Huner-hund. Ridinger, T. xiv.

215

φ. Barbet.—*Canis aquatilis*.

The tail is truncated, or seems cut off in the middle, with long coarse hair. Ridinger, t. 42.

This seems the same with the *Canis aquaticus major*, Great Water-Dog, or Grand Barbet of Buffon, already mentioned at α.—T.

216

χ. Grey-hound.—*Canis cursorius*.

Has a long narrow head, with a strong lengthened snout, and small half pendulous ears; the legs are long, and strongly made; and the body is long and thin.

Curs-hund. Ridinger, T. 13.

217

ψ. Irish Grey-hound.—*Canis cursorius hibernicus*.

Is nearly as large as a mastiff, having an arched body, and narrow projecting snout.

Schreber, iii. 327. tab. lxxxvii. Raj. quad. 176. n. 3. Sm. Buff. iv. pl. xxiv. Penn. hist. of quad. n. 136. iv. α.

218

ω. Turkish Grey-hound.—*Canis cursorius turcicus*.

Is of the size of a mastiff, with an arched body, and narrow snout; and having the fur somewhat curled.

Ridinger, t. 9. Ald. dig. 550.?

219

αα. Common Grey-hound.—*Canis Grajus*.

About the size of a wolf; having a curved or arched body, and narrow snout.

Scotch hunting Dog, *Canis scoticus venaticus*. Gefn. quad. 249. Aldr. dig. 545.—Grey, Greek, or Scotch hunting Dog, *canis venaticus grajus*, f. *graecus*, nonnullis *scoticus*. Raj. quad. 176. n. 2.—Levrier, or Grey-hound. Sm. Buff. iv. pl. xxvi. Penn. hist. of quad. n. 136. iv. β.—Windspiel. Ridinger, t. 7.

220

ββ. Rough Grey-hound.—*Canis Grajus hirsutus*.

Same size, body and snout, with the last, but having the hair somewhat longer, and curled.

Aldr. dig. 549.—Zotiger Wind-hund. Ridinger, T. 1. f. 1.

221

γγ. Italian Grey-hound.—*Canis Grajus italicus*.

Of a small size, but the same form of body and snout with the last.

Penn. hist. of quad. n. 136. iv. β. 1.—Kleines Windspiel. Ridinger, T. 15.

222

** Oriental Grey-hound.—*Canis Grajus orientalis*.

Tall, slender, with very pendulous ears, and very long hairs on the tail, hanging down a great length. Penn. hist. of quad. n. 136. iv. β. 2.

223

δδ. Naked Dog.—*Canis aegyptius*.

Has no hair on the body.

Aldr. diget. 562.—Small Indian Dog, with a naked skin. Brown. Jamaic. 486.?—Chien-turc, or Turkish Dog. Sm. Buff. iv. pl. xli. f. 1.—Naked Dog. Penn. hist. of quad. n. 136. v. δ.

224

εε. Lurcher.—*Canis laniarius*.

The body is narrow, and covered with short thick-set hair; the legs are strong, and the tail is thick and straight.

225

ζζ. Rough Lurcher.—*Canis laniarius aprinus*.

In body, legs, and tail, resembles the last, but is covered with long harsh hair.

Saufinder. Ridinger, T. 11.

226

ηη. Boar Lurcher.—*Canis laniarius fuillus*.

The head and snout are strongly made; the hind part of the body is lank; the legs are long; and the hair is long and harsh.

Sauruden. Ridinger, T. 12.

θθ. Turnspit.—*Canis Vertegus*.

Has short legs; and a long body, which is mostly spotted.

Penn. hist. of quad. n. 136. ii. γ.—Dachschlieffer, or Dachswurger. Ridinger, T. 16.

227

a. With straight legs. Sm. Buff. iv. pl. xxxiv. fig. 1.

228

b. With crooked legs. Sm. Buff. iv. pl. xxxiv. fig. 2.

229

c. With long shaggy hair.

ii. Alco.—*Canis americanus*.

About the size of a squirrel; having a small head, pendulous ears, a curved body, and short tail. Sm. Buff. viii. 261.

Of this animal there are two kinds mentioned by authors.

230 a. Fat Alco.—*Canis americanus obesus*.

Is prodigiously fat; the head is very small, and the ears are pendulous; the fore part of the head is white, and the ears are yellowish; the neck is short; the back is arched, and covered with yellow hair; the tail is white, short, and pendulous; the belly is large, and spotted with black; the legs and feet are white: The female has six conspicuous paps.

Michuacanens. Fernand. anim. nov. hisp. 7.—Ytzcuinte-porzotli, *Canis americanus*, or American Dog. Hernand. hist. Mexic. 466.

231 b. Techichi.—*Canis americanus plancus*.

Is like the small dogs of Europe, but has a wild and melancholly air.

Fernand. an. nov. hisp. 10.

232 2. New-Holland Dog.—*Canis antarcticus*.

The tail is bushy, and hangs downwards; the ears are short and erect; and the muzzle is pointed.

Dog of New-South-Wales. Gov. Phillips voy. 274. pl. xlv.

Inhabits New-Holland.—This animal is rather less than two feet high, and about two feet and a half in length: His head resembles that of a fox, having a pointed muzzle, garnished with whiskers, and short erect ears; the whole body and tail is of a light brown colour, growing paler towards the belly, on the sides of the face, and on the throat; the hind parts of the fore legs, the fore parts of the hind legs, and all the feet, are white: On the whole, it is a very elegant animal, but fierce and cruel; from which, its figure, and the total want of the common voice of the Dog, and from general resemblance in other respects, it seems more properly to belong to the Wolf than Dog kind.

233 3. Wolf.—2. *Canis Lupus*. 2.

Has the tail hanging down, and bent inwards. Faun. suec. 6. Schreber, iii. 346. tab. lxxxviii.

Yellowish brown Dog, *Canis griseo-flavescens*. Briff. quad. 170.—Lupus. Gefn. quad. 934. Aldr. dig. 144. Jonst. quad. 89. Raj. quad. 173.—Loup, or Wolf. Sm. Buff. iv. 196. pl. lxiv.—Wolf. Penn. hist. of quad. n. 137. BRIT. ZOOL. i. 61. t. 1. Arct. zool. n. 9. Ridinger, t. 21.—The Anatomy, E. N. C. d. 2. a. 9. obs. 71. and Cent. 10. app. 450.

Inhabits



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Inhabits Europe, Asia, Africa, and America, and as high as the Arctic Circle.—Has long been extirpated from the British isles: The last mention of Wolves in England is in 1281, when they were numerous in some of the counties; Sir Ewen Cameron of Lochell killed the last Scotch Wolf, in Lochaber, in 1680; and the last in Ireland was killed in 1710.—They are chiefly found in forests, even in the colder regions of the north; they hunt in packs, and destroy cattle, sheep, horses, swine, and even dogs: They are very suspicious animals, and are scarcely to be heard in the woods; and so fearful of snares, that they even avoid a little bit of rope dragging on the ground: When attacking folds, or fields, they always avoid the door and leap over the fence; and dread the sound of a trumpet: They have very nice sense of hearing and of smell: They copulate in winter; the female goes a hundred days with young, and brings forth from three to nine whelps; these come to their full growth in the third year, and live for fifteen or twenty years. When excessively pushed by cold and hunger, they attack mankind, and will even prey on their own species; though they can support famine for a long time. They are destroyed by means of the moss named *Lichen vulpinum*.

The Wolf is as tall as a large Grey-hound: The head is long, with a pointed nose, and sharp erect ears; the tail is bushy, hangs down, and is black at the tip; the legs are long, and the teeth large; the hair, in general, is longish, though not shaggy; the head and neck are ash coloured, and the body is of a pale brown, tinged with yellow.

Besides the above described, which may be termed the Common Wolf, there are several varieties of this species, differing chiefly in colour, perhaps occasioned by climate: The following are the most remarkable, and best described; for the Wolves of some authors are evidently Hyænas.

β. Yellow Wolf.—*C. Lupus flavus*.

Of a yellow colour. Sm. Buff. iv. p. 207.

This is found in France and Germany, having a thicker fur, and of a more yellow colour than the common kind: It is more wild, though less destructive, and never troubles the flocks, or the habitations of man.

γ. White Wolf.—*C. Lupus albus*.

Of a white colour. Muller. Ruff. Sam. iii. 527.

This variety is found near the Jenifea, in the eastern parts of Asiatic Russia, and is much valued on account of its fur.

δ. Black Wolf.—*C. Lupus niger*.

Of a uniform black colour. Sm. Buff. iv. 212. pl. lxv.

Inhabits Canada.—This variety is not so large as the common kind; the ears are larger, more erect, and more distant; but in every other circumstance, and in dispositions, it resembles the common European Wolf.

ε. Striped Wolf.—*C. Lupus fasciatus*.

Of a grey colour striped with black. Penn. hist. of quad. p. 232.

Inhabits the Cape of Good Hope.

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4. Mexican Wolf.—3. *C. Lupus mexicanus*. 8.

The tail is smooth, and bent downwards; the body is ash coloured, variegated with dusky stripes and tawny spots.

Canis cinereus, or Ash-coloured Dog, spotted with tawny. Briss. quad. 237.—Quauhpecotli, or American Mountain-cat. Seba, mus. i. 68. t. 42. f. 2.—Xoloitcuintli, or Mexican Wolf. Hernand. Mex. 479.—Cuatlachtli, *Lupus indicus*, or Indian Wolf. Fernand. nov. Hisp. 7.—Mexican Wolf. Sm. Buff. viii. 258. Penn. hist. of quad. n. 138.

Inhabits the warm parts of Mexico and New Spain.—The body is ash coloured, with dark brown stripes, and having tawny yellow spots on the fore-head, neck, breast, belly, and tail; the head is very large, with great jaws, and strong teeth; above the mouth there are some bristles, as large, but not so hard, as the spines of a Hedge-hog; the neck is very thick. This animal agrees with the Wolves of the Old World in its ravenous manners, and in its general form, except as above described.

239

β. White Mexican Wolf.—*C. Lupus mexicanus albus*.

Of a uniform white colour. Fernand. hist. anim. nov. Hisp. 7.

According to Fernandez, who describes the animals of New Spain, the Mexican Wolf is sometimes found of a uniform white colour, but agreeing in every other particular with the Striped Mexican Wolf just described.

240

5. Surinam Wolf.—4. *C. Lupus Thous*. 9.

The tail is smooth, and bent downwards; the body is grey on the upper, and white on the under parts.

Surinam Wolf. Penn. hist. of quad. n. 147.

Inhabits Surinam.—The body is grey above, and entirely white on the under parts; the ears are erect, and of the same colour with the body; the face has a wart over each eye, on each cheek, and under the throat; and the tongue is fringed at the sides. It is about the size of a large Cat.

241

6. Striped Hyæna.—5. *Canis Hyæna*. 3.

Has a short straight tail; erect hair, like a mane, on the neck; naked ears; and only four toes on all the feet. Schreber, iii. 371. tab. xevi. Miller on var. subj. tab. xix. A.

Taxus porcinus, f. *Hyæna antiquorum*. Kaempfer, amoen. exot. 411. t. 417. f. 4.—*Lupus marinus*. Bellon. aquat. 33. t. 34. Jonst. quad. t. 57. Gefn. 359.—*Hyæna*. Briss. quad. 169. Sm. Buff. v. 226. pl. cxxv.—Striped Hyæna. Penn. hist. of quad. n. 149.—Indianischer Wolf. Ridinger, allert. Thiere. t. 37.

Inhabits the eastern and southern parts of the Old World, Mount Caucasus, and the Altaic Chain, Asiatic Turkey, Syria, Persia, and Barbary.—This animal is the *Ἰαίνα*, *Κροκοδαύ* and *Κροκοίνα*, of the ancients, and is likewise named *ελαιος* by Aristotle.—It burrows in the ground, and dwells in caves, being

being capable of living for a long time without food: It frequents burying grounds, in which it digs up the graves of the dead, and feasts on the half putrid carcases of mankind. Whatever substance is presented to it, when angry, it seizes in its teeth, and holds firmly with the most unconquerable obstinacy, not quitting its hold but with its life; and from this circumstance it becomes an easy prey to the hunters. It is about the size of a large Dog, and resembles a wild Boar in its countenance. The hair on the ridge of the back is erect, near a span long, and black at the points; the eyes are placed near the snout; the ears are naked; the tail is generally variegated with black rings, and has the hair long and surrounding it in a radiated bush at the extremity; the body is of an ash colour, marked with transverse streaks, from the back downwards to the belly.—This animal is apparently allied to the Bear and Badger; having, like the latter, a transverse orifice, or sack, which secretes a foetid matter, situated between the tail and the anus.

Mr Pennant, with considerable propriety, separates this animal, and the two next, from the genus of Dog, making them two species of a distinct genus, under the name of *Hyaena*. The distinguishing marks are, the short tail, the transverse orifice under the tail, the having six fore-teeth in the lower jaw, and only four toes on each foot.

242 7. Abyssinian Hyaena.—*C. Hyaena aethiopicus*.

The tail is bushy; and the body is marked with curved stripes. Bruce, Abyss. v. 107. and fig.

Inhabits Abyssinia, and the north-east of Africa.—Whether this animal, as described and figured by Mr Bruce, be a distinct species, I do not pretend to determine. In magnitude, ferocity, and manners, it resembles the following species; but its body, which is of a yellowish brown colour, is marked with curved stripes of black, in form of a reversed Italian *f*; the muzzle is black; the legs are striped across with black; and the bushy tail is of a reddish brown colour.—T.

243 8. Spotted Hyaena.—6. *C. Hyaena Crocuta*. 10.

Has a straight tail; four toes on all the feet; and the body is spotted with black. Erxleben, hist. mam. 578.

Hyaena, or Crocuta, congeneric with the former animal. Ludolf. Æthiop. B. i. c. 10. n. 50.—Quumbengo. Barbot, Guin. 486.—Jachhals, or Boshund. Boffin. Guin. 291.—Spotted Hyaena. Penn. hist. of quad. n. 150. pl. xxix. fig. 2.

Inhabits Guinea, Ethiopia, Abyssinia, the Cape of Good Hope, and all the intermediate countries of Africa.—Lives in holes of the ground, and clefts, or caverns, among rocks. Preys, by night, on cattle, sheep, and horses, even attacking mankind, and digs up graves to feed on dead bodies: Has a terrible howling voice. The upper part of the head, and the face, are black; the mane is short and black; the body and limbs are covered with short, soft, hair of a reddish brown colour, marked with round black spots; the tail is short and bushy. This species is considerably superior in size, strength, and ferocity, to the former, insomuch that it is able to carry off, and with great speed, a full grown man. The head is large and flat, having some long hairs above each eye, and very large whiskers on each side of the nose.

244

9. Jackal.—7. *Canis aureus*. 7.

Has a straight tail, and the body is of a pale tawny yellow colour. Schreber, iii. 365. tab. xciv.

Canis flavus. Briff. quad.—*Lupus aureus*. Kaempfer, am. exot. 413. t. 407. f. 3. Raj. quad. 174. Klein, quad. 70.—*Vulpes indicus*. Valent. mus. t. 452.—Adil. Belon. obs. 167.—Schakall. S. G. Gmel. it. Ruf. iii. 80. t. 13. Guldenstedt, nov. com. Petrop. xx. 449. t. x. Penn. hist. of quad. n. 145. Sm. Buff. vii. 255.

Inhabits the warmer regions of Asia, and in Barbary: According to Mr Pennant, it is found in all the hot and temperate parts of Asia, and in most parts of Africa.—This animal is the *Θαῦς* of Aristotle and Aelian, the *Λυκος ξυιδος* and *χρυσος* of Oppian, and the *Thoes* of Pliny. It lies hid, during the day, in the forests and mountains; and seeks for prey, in the night, in packs of two hundred, or more: It is much given to theft, walking slowly and cautiously with the head louching, but runs off with great swiftness when detected: Will not attack adults of the human species, but sometimes devours children: Preys on small quadrupeds and birds, and eats of various kinds of food, such as roots and ripe fruits, and will even dig up the ground in search of dead carcases: Copulates, like dogs, in the spring; and the female brings from five to eight cubs, after going about a month with young. It goes about only during the night, making a hideous noise; for, when one begins to howl, every one within hearing joins in the dismal cry, which resembles the howling of Dogs intermixed with a kind of barking: By this barking and noise the other beasts of the forest are set in motion, and join in the chase of Stags or other animals; in the mean time, Lions and Tigers lay in wait for the flying game, and, seizing it by surprise, devour the prey which was roused and followed by the pack of Jackals; and these are forced to wait around till the tyrant of the forest, having satisfied his appetite, leaves the remains of his feast to them, who, from this circumstance, have been named the *Lion's provider*. The head is somewhat shorter than that of a Fox, with a blunter nose; black lips; somewhat loose, short, erect, pointed ears, which are white, and hairy within; the whole animal has a general resemblance to the Fox, but the body is rather thinner, and compressed, and the legs are longer; the tail is thickest of hair in the middle, and tapers both ways; each foot has four toes, which are covered with hair, even to the claws, and a fifth toe, or dew-claw, placed high, on the inside of each fore foot; the colour of the upper part of the body is a dirty yellow, or tawny, which is mixed with black on the back; the lower parts are yellowish white; the tail is of the same colour with the back, and is tipped with black; the legs are of an unmixed tawny brown, having sometimes a black spot on the knees: It is twenty-nine inches long from the nose to the origin of the tail; and eighteen or nineteen inches high at the shoulders. The Jackal has much the nature of Dogs, with a strong musky smell; when taken young, it acquires the same affectionate manners; and is by some late authors supposed to be the original stock of all our various kinds of Dogs, which have been altered by climate, and intermixture with some other species. See Penn. hist. of Quad. 244.

245

10. Cape Jackal.—8. *Canis Mesomelas*. 11.

Has a straight tail, and a rusty coloured body, with a black band on the back.

Erxl. mam. 574. Schreber, iii. 370. tab. xcv.

Jackhals. Kolben, Cape. 150.—Capefch, Tenlie, or Kenlie, of the Hottentots. Penn. hist. of quad. n. 146.

Is common at the Cape of Good Hope.—This species has very much the appearance of a Fox, and is about twenty-seven inches long from nose to rump; the tail being a foot long: The ears are erect, of a yellowish brown colour, mixed with a few black hairs; the head is yellowish brown, mixed with black and white, and growing darker towards the back part; the sides are pale brown, varied with dusky hairs; the upper part of the body, and back of the legs, are yellowish brown; the throat, breast, and belly, are white; the tail is bushy, and yellowish brown, with a longitudinal black stripe on its upper part, having two black rings towards the end, and is tipped with white; on the neck, shoulders, and back, is a large black patch, broad at the shoulders, and growing narrower towards the tail; when the hairs are smooth, this patch seems marked with white bars on the neck, and with concentric curved lines on the shoulders; but, when the hairs are ruffled, these regular marks change to a general hoariness.

246

11. Barbary Jackal.—*Canis Adive*.

Has a straight bushy tail, surrounded with three broad black rings.

Jackal-adive. Sm. Buff. vii. 266. pl. ccxxxviii.—Barbary Jackal. Penn. hist. of quad. n. 144.

By the Count de Buffon, on the authority of Mr Bruce, this animal is said to be common in Barbary, and named *Thaleb*, which, Mr Pennant observes, is the Arabick name for the Common Fox. The colour of this animal is a pale brown, having a black line behind each ear, which, dividing into two, extends to the lower part of the neck; the nose is long and slender; the ears are sharp and erect; and the tail is long and bushy, being surrounded with three broad black rings. This animal is very much of the same size and form with the Common Fox, but has shorter legs.

247

12. Black Fox.—9. *C. Vulpes Lycaon*. 12.

Has a straight tail; and the body is entirely black.

Erxleb. mam. 560. Schreber, iii. 353. tab. lxxxix. Miller on var. subj. tab. xix. B.—*Vulpecula nigra*. Scheff. Lapon. 340.—Schwarze Fuchse. Steller, Kamtschat. 124.—Black Fox. Penn. hist. of quad. n. 139. γ. Arct. zool. n. ii. α.—Lupo nero. Aleff. quad. i. t. 24.

Inhabits the colder regions of Europe, Asia, and America.—This is the most cunning animal of the genus: It is exceedingly like the Wolf, and is of an intermediate size between that animal and the Fox. The colour is entirely black; sometimes, however, variegated with greyish, or by having the tips of the hairs of a silvery whiteness. The fur is reckoned very valuable; being preferred in Russia to the finest fables; one skin sometimes selling for four hundred roubles: Those of America are inferior in beauty.—The above description refers distinctly to a variety of the Fox; and yet Dr Gmelin quotes, as a synonyme, the Black Wolf of Buffon, with the plate and description already referred to in sp. 3. δ. of this genus.—T.

248

13. Fox.—10. *C. Vulpes*. 4.

Has a straight tail with a white tip. Schreber, iii. 354. tab. xc.

Vulpes. Gefn. quad. 966. Aldr. dig. 195. Jonst. quad. 82. Raj. quad. 177.—Renard, or Fox. Sm. Buff. iv. 214. pl. lxvi.—Fuchs. Riding. jagd. thierr. t. 14.—Fox. Penn. hist. of quad. n. 139. BRIT. ZOO. i. 58. Arct. zool. n. 11.

Inhabits

Inhabits Europe, Asia, Africa, and America, as far as Chili.—Is the *Αλοπηξ* of Aristotle and Aelian, and the *Κεῖδω* of Oppian. This animal is very cunning, and dwells in holes of its own digging; it preys on lambs, geese, ducks, poultry, and small birds, and even eats the dung of other animals; becomes fat in France by feeding on grapes in autumn, and at this time his flesh is reckoned very good eating; it does not readily commit thefts in the immediate neighbourhood of its haunts; is much afraid of fire arms, and even flies from the smell of gun-powder, and may be chased away by means of smoke: The body is of a deep tawny-red colour, with black fore feet, and tips of the ears; the ears are erect, and the lips are white: It emits a strong rank odour from the base of the tail.

14. Brant Fox.—11. *C. Vulpes Alopex*. 5.

The tail is straight, and has a black tip. Schreber, iii. 358. tab. xci.

Fox, having a thicker fur than the common kind, and of a blackish colour. Gefn. quad. 967.

Inhabits Europe, Asia, and Chili.—This animal is less frequent, smaller, and of a darker colour, than the Common Fox, to which it is very similar in all other respects. Since it is found both in Chili and the Old Continent, it ought also to inhabit the intermediate regions in the north of America; and, accordingly, that described by Mr Pennant came from Pennsylvania. Authors do not seem properly agreed about the animal to which this name is given; at least the Coal Fox of Buffon, and the Brant Fox of Pennant, are considerably different, though quoted by Gmelin as synonymous; they are therefore in this edition subjoined as varieties.—T.

249 α. American Brant Fox.—*C. Vulpes Alopex americanus*.

The tail is black above, red beneath, and cinereous on the sides. Penn. hist. of quad. n. 139. 2. Arct. zool. n. 11. 7.

Inhabits Pennsylvania.—This animal is hardly half the size of the Common Fox; the nose is black and very sharp; the fore-head, back, shoulders, sides, and thighs, are ash coloured, mixed with red and black, and having a hoary look; the belly is yellowish.

250 β. Coal Fox.—*C. Vulpes Alopex europæus*.

Has remarkably black feet.

Charbonnier, or Coal Fox. Sm. Buff. iv. 221.

Inhabits Burgundy, where it gets the name of Renard Charbonnier, or Collier Fox, from the blackness of his feet and legs, as if they had become so artificially by working among charcoal dust. This variety is of a silver grey colour; having the tail tipped with white, like the Common Fox.

251 15. Corsac Fox.—12. *C. Vulpes Corsac*. 13.

Has a straight tawny tail, which is black at the root and tip. Syst. nat. ed. xii. app. 3. p. 23. Schreber, iii. 359. tab. xci. B.

Korfaki. Rytschkow, Orenb. i. 232. Pallas, neue nord. Beytr. i. 29.—Corsac Fox. Penn. hist. of quad. n. 139. 5. Arct. zool. n. 11. 2. Sm. Buff. vii. pl. cccxxxix.

Inhabits

Inhabits chiefly in the great desert between the Ural and the Irtish, in Asiatic Russia.—This species, or variety, is less than the Common Fox, but, in other respects, is very similar; it is greedy of birds, has a bad smell, and howls and barks exactly as they do; the ears are upright, the hair is soft and downy; the tail is bushy, and as long as the body; the fur is of a pale tawny colour in summer, growing grey in winter, with a white throat; the tail is cinereous, except the base and tip. Forty or fifty thousand of the skins of this variety are annually sold by the Kirghis Khaissacks to the Russians; being caught by means of Falcons and Grey-hounds.

252 16. Karagan.—13. *C. Vulpes Karagan*. 14.

The tail is straight; the body is of a grey colour, and the ears are black.

Karagan, Steppen fuchse, or Desert Fox. Pallas, it. i. 199. 234.

Inhabits the deserts belonging to the Kalmucks and Kirgises.

253 17. Silvery Fox.—14. *C. Vulpes cinereo-argenteus*. 15.

The tail is straight; the body is of a silver grey colour, with the sides of the neck of a yellowish brown. Erxl. mam. 567. Schreber, iii. 360. tab. xcii. A.

Silvery Fox. Penn. hist. of quad. n. 143. Arct. zool. n. 13.

Inhabits North America.—This animal is smaller than the Common Fox, with which it agrees in figure and manners.

254 18. Grey Fox.—15. *C. Vulpes virginianus*. 16.

Has a straight tail; and the body is of a whitish ash colour. Erxl. mam. 567. Schreber, iii. 361. tab. xcii. B. Briss. quad. 174. Klein, quad. 71.

Grey Fox. Catesby, Carolina ii. 78. tab. Penn. hist. of quad. n. 142. Arct. zool. n. 12.

Inhabits Carolina, and the warmer parts of North America.—Lives in the hollow trunks of decayed trees, and is easily tamed.

19. Arctic Fox.—16. *C. Vulpes Lagopus*. 6.

Has a straight tail; and all the feet are remarkably hairy. Erxleb. mam. 568.

Canis f. vulpes, with a straight tail, having the tip of the same colour with the rest. Syst. nat. ed. xii. 59. Schreber, iii. 362. tab. xciii. Briss. quad. 174.

Inhabits the countries on the Frozen Sea, and in North America, extending as far as Kamtschatka, and the islands between that and America; is found in Greenland, Iceland, Spitzbergen, Nova Zembla, and Lapland, and even so far south as Chili.—This animal keeps mostly on the naked mountains, and is seldom found in forests, living in burrows under ground, or in clefts of rocks; it feeds on mice, and the young of geese, ducks, &c.; and, when pressed by famine, eats berries or shell fish: It barks like the Fox, but has not the same fetid smell: The female goes nine weeks with young: The fur is reckoned valuable. Of this species there are two varieties.

255

α. White Arctic Fox.—C. Vulpes Lagopus albus.

Is of a white colour. Kalm. Bahus. 236.

Ifatis, or Arctic Dog. Sm. Buff. vii. 268. J. G. Gmelin. nov. com. Petrop. v. 1760, 358. Penn. hift. of quad. n. 146. Arct. zool. n. 10.

256

β. Bluish Arctic Fox.—C. Vulpes Lagopus caerulefcens.

Is of a bluish colour. Faun. Suec. 14.

257

20. Cross Fox.—C. Vulpes crucigera.

Has a black cross on the shoulders.

Vulpes crucigera. Briff. quad. 241. n. 6.—Kors-raef. Faun. suec. 4.—Cross Fox. Penn. hift. of quad. n. 139. β. Arct. zool. n. 11. β.

Inhabits the coldest parts of Europe, Asia, and North America.—Has a black mark along the back to the tail, and a transverse black band cross the shoulders; the fur is thicker and softer than that of the Common Fox, and is reckoned valuable. This variety of Fox is passed over with hardly any notice by Dr Gmelin, but is placed here on the authority of Mr Pennant.

258

21. Chilese Fox.—C. Vulpes chilensis.

Has a straight and very long tail, which is smooth, and the tip is of the same colour with the rest.

Canis culpaus. Molin. hift. nat. Chil. i. iv. 259.

Inhabits Chili.

259

22. Antarctic Fox.—C. Vulpes australis.

The tail hangs down, is bushy, and is tipped with white; the ears are short, erect, and pointed. Penn. hift. of quad. n. 141.

Coyotl, Vulpes indicus, or Indian Fox. Fernand. Mex. 4. Loup-renard, or Wolf Fox. Bougainville's voy. Eng. transf. 58.

Inhabits America and Falkland's islands.—This species or variety is about a third larger than the Common Fox, and has much the habits of the Wolf, in the ears, tail, and strength of limbs. It lives near the shores in Falkland's islands, in kennels like Foxes, and has regular paths from one part of the shore to another for surprising the sea-fowl, on which it chiefly feeds. It is very tame, barks like a Dog, and smells very fetid. The head and body are covered with woolly hair of a cinereous brown colour; the legs are dashed with rust colour; the tail is dusky, and tipped with white; the insides of the ears are lined with white hair.

260

23. Zerda.—17. Canis Cerdo. 17.

Is of a pale yellowish brown colour; having a long, straight, smooth tail, and very long, erect, rose coloured ears.

Cerdo.

Cerdo. Skioldebrand, aft. Suec. an. 1777, trim. 3. art. 7. t. 6.—Zerda. Penn. hist. of quad. n. 148. t. xxviii.—Anonymous animal. Sm. Buff. viii. 283. pl. ccxciv.—Fennec. Bruce's Abyſſinia, vol. v. 128. and pl.

Inhabits the great African deſert of Zaara, and in Lybia, on the ſouth ſide of a lake, formerly called Palus Tritonites.—This animal is ſmaller than the other ſpecies of the genus: It is very ſwift of foot, climbs trees, and lives on locuſts and other inſects; it barks, or rather yelps, like a young Dog. Dr Gmelin is uncertain whether this animal ſhould belong to this genus; and, from Mr Bruce's account, it certainly ſhould not, ſince it has retractile claws; but, as that adventurous traveller has not given a deſcription by which the naturaliſt can refer it to any particular part of ſyſtem, with a tolerable degree of certainty, it may remain here until a ſpecimen be brought to Europe for examination. It is between nine and ten inches long; the ears are nearly five inches long, and proportionally broad; the muzzle reſembles that of a Fox; the toes have ſhort retractile claws; the tail is long, round, and pointed at the end; the colour is white, mixed with a little grey and bright yellow; the ears are naked on the inſide in the middle, but the reſt of the inſide is garniſhed with long white hairs: the outſide is covered with brown hair, mingled with yellow: It lives on the palm trees, of which it eats the fruit.

XV. C A T.—14. *FELIS* 13.

Has ſix cutting teeth, all equal, and two tuſks in each jaw, and three tuſks on each ſide in both jaws: The tongue is beſet with rough papillae, which point backwards: The feet are provided with ſharp hooked claws, which are lodged in a ſheath, and may be extended or drawn in at pleaſure: The head is moſtly round, and the viſage ſhort.

This genus is rather temperate in its natural appetite, though ferocious: It is tolerably ſwift of foot, very agile in climbing trees, and has the remarkable property of alighting on the feet, when accidentally thrown, or falling, from a height, by which the danger, uſually attendant on ſuch falls, is prevented. The toes are all provided with very ſharp hooked claws, which are retractile, and are always kept incloſed in their ſheaths to preſerve them from injury, except when neceſſary to ſeize on prey, or for climbing: Almoſt all the ſpecies of this genus ſeize their prey by ſurpriſe, lying in wait till it comes within reach, and then ſuddenly ſpringing forwards at one leap; and, while the prey is in fight, they have a cuſtom of waving the tail from ſide to ſide: They moſtly ſuck the blood of ſuch animals as they catch before devouring them: They do not uſe vegetable food except from neceſſity*. The females bring a conſiderable number at a birth, and have all eight paps, whereof four are ſituated on the breaſt, and four on the belly.

This genus is very conveniently arranged, by Mr Pennant, in two ſubdiviſions, having *long* and *ſhort* tails, which are adopted in this edition.—T.

VOL. I.

T

* Glans penis muricatus retrorſum.—Gm.

* With long tails, and plain ears.

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1. Lion.—1. *Felis Leo.*

Of a pale tawny colour. Schreber, iii, 376. tab. xcvi. A. B.

Lion, or *Felis Leo*, having a long tail bushy at the end, and the breast and neck covered with a long shaggy mane. Syft. nat. ed. vi. p. 4. n. 1. Briff. quad. 134. Gefner, 572. Aldrov. 2. Jonst. quad. 72. Dodart, i. t. 1. and vii. t. 7. Raj. quad. 162.—Lion. Sm. Buff. v. 64. pl. cvii. and cviii. Penn. hift. of quad. n. 151.—Anatomy. E. N. C. d. 1. a. 2. obf. 6. Bartholin. act. 1671. n. 17. Nov. com. Petrop. 1771. tab. xvi.

Inhabits Africa, especially its interior parts; and is found, though not in such numbers, in the deserts of Persia, India, and Japan: In ancient times it was likewise to be met with in all the warm regions of Asia, in Palestine, Armenia, and Thrace. —This animal preys on horses, and other large animals, and seldom attacks mankind, unless when urged by famine: It is afraid of flame, and may even be kept in awe by means of dogs; is fond of sleeping in the sun's heat; of a lazy and thievish disposition, and slow of foot, but catches its prey by leaping on it at unawares; and usually eats as much at once as will serve for three days; it has a stinking breath, and weak sense of smelling; when young may be rendered tolerably tame: The general colour is a pale tawny yellow, though sometimes of a darker hue; the head is large, and of a rounded form, with a squared fore-head, and large eyes; the lips are pendulous at the sides of the mouth; the heart is said to be very large: The male is near a third part larger than the female, and is sometimes eight feet long, from the end of the muzzle to the origin of the tail; his breast is covered with rough hair; and the head and sides of the neck are furnished with a flowing yellowish brown mane, the hair of which is about two feet long, the rest of the body is covered with smooth short hair, and the tail is a little bushy at the extremity. The female is considerably less than the male, and is entirely smooth in the fur. The voice of the Lion, when irritated, is a horrible roar, proceeding from the wind-pipe being composed of entire cartilaginous rings, which overlap each other like tiles. The flesh of Lions is eaten by some inhabitants of Africa.

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2. Tiger.—2. *Felis Tigris.* 2.

The body is marked with long dark coloured streaks. Schreber, iii. 381. tab. xcvi.

Felis tigris. Briff. quad. 195. Ludolf. hift. Æthiop. 151. Gefn. quad. 936. Aldrov. dig. 101. Jonst. quad. 84. t. 54. Bont. Jav. 53.—Tiger. Sm. Buff. v. 153. pl. cix. Penn. hift. of quad. n. 152.—Anatomy of the Tiger, E. N. C. d. 1. a. 2. obf. 7. and a. 9. obf. 194. S. G. Gmelin, it. Ruff. iii. 483.

Inhabits the hotter regions of Asia, as far as China and Japan; is likewise found on Mount Ararat, in Chinese Tartary, about lake Aral, and in the Altaic mountains; but is largest and fiercest in India, especially Bengal, and the Indian islands.—This animal lives in woods and thickets, mostly by the sides of rivers; is exceedingly cunning, very cruel, immensely strong, and of vast swiftness: It is the greatest enemy of man, even laying whole districts waste, especially in India. Though tamed almost from the birth, it will evince its native ferocity, and escape from its chains as soon as an opportunity offers. The Tiger is almost as large as the Lion, and, like him, has a foetid breath. The male

male destroys his own progeny when he can get to them. Has a most acute sense of seeing: Lies in wait for his prey, and seizes it by a sudden bound. This is the most beautiful of all wild beasts.

This animal, though immensely cruel and ferocious, is yet exceedingly cowardly; and, though he seems to prefer mankind to any other prey, when he can procure such by surprise, will hardly attack openly even the smallest animal that is capable of making resistance. Like the Cat, with which his manners agree very much, he lurks among bushes, crawling slowly on his belly towards such prey as appears, until he thinks he has got within reach, then springs forward from his ambush with an immense bound; but, if he misses his object, makes off without repeating the attempt: When he succeeds, though the animal be a large Buffalo, so vast is his strength, he carries it off with the utmost ease into the recesses of the forest: If undisturbed, he plunges his head into the body of the slaughtered animal, and sucks the blood, before he devours the carcase, as if delighting in ferocious slaughter. The head and body are smooth; the general colour is pale yellow, very beautifully marked with long stripes of black, which point downwards, along the sides, from the back to the belly, and are transverse on the thighs; is often larger than the Lion, some having been found fifteen feet long, including the tail, which is about two-thirds the length of the body and head.

263

3. Panther.—3. *Felis Pardus*. 3.

The upper parts of the body are marked with circular spots, and the lower with streaks. Schreber, iii. 384. tab. xcix.

Felis Pardus. Briss. quad. 194.—*Panthera*, *Pardus*, *Pardalis*, *Leopardus*. Gesn. quad. 824. Raj. quad. 166.—*Pardus*. Ludolf. Æthiop. 511.—*Panther*. Sm. Buff. v. 167. pl. cx. and cxi. Penn. hist. of quad. n. 153.

Inhabits Africa, from the Barbary coast, as far as the southern parts of Guinea, and is likewise said to be found in Asia.—This animal is of a strong make, and is next in size to the Tiger, measuring sometimes near seven feet from the tip of the nose to the origin of the tail, which is about three feet long. The Panther is probably the *παρδαλις μέζων* of Oppian. Though a very fierce and cruel animal, it is less apt to attack mankind than the Tiger, and confines its depredations chiefly to animals, unless when irritated, or much pressed with hunger. It is said sometimes to enter houses in the night time, and to prey on domestic Cats. The general manners of this species are very similar to those of the Tiger, already described. It is quite untameable, and always retains a fierce malevolent aspect, perpetually growling or murmuring. The general colour of the hair, which is smooth and short, is bright tawny, having the back, sides, and flanks, elegantly marked with black spots, which are of a circular form, each being composed of four or five lesser spots, with a single spot in the center; the spots on the face and legs are single, and the top of the back has a row of oblong spots, the longest of which are next the tail; the chest and belly are white, the former being marked with transverse dusky stripes, and the latter, as is the tail, with large irregular black spots; the end of the nose is brown, and the ears are short and pointed.

264

4. Ounce.—4. *Felis Uncia*. 9.

The body is of a whitish colour, marked with irregular black spots. Erxleben, mam. 508. Schreber, iii. 386. t. c.

The Ounce. Sm. Buff. v. 167. pl. cxii. Penn. hist. of quad. n. 157-

Inhabits the northern parts of Africa, in Persia, Hyrcania, and China, and in Siberia, about the Altaic and Bucharian mountains, and to the west of Lake Baikal.—This animal is probably the *Panthera* of Pliny, and the *παρδαλις ελγιοτέρα* of Oppian. It is considerably less than the former species of this genus, being about three feet and a half long, and the tail above three feet; it is likewise of milder dispositions, may be tamed, and is even trained to the chase of Antelopes and Hares, becoming as tractable as a well bred Pointer. The huntsman carries him to the field on the crupper of his saddle, making him descend after the game and jump up again at command. The ground colour is a whitish grey on the back and sides, and still whiter on the belly; the head is marked with small round black spots, having a large one behind each ear; the upper part of the neck has large single spots; those on the sides of the back are longitudinally oblong, and composed each of several small spots, almost touching each other, and leaving a void in the middle; the rest of the spots on the body are large, irregularly figured, composed of smaller spots, and filled in the middle; on the legs they are small, and thinly dispersed; the tail is full of hair, and irregularly marked with large black spots.

265

5. Leopard.—5. *Felis Leopardus*. 10.

Of a yellow colour, marked with black spots, which are almost contiguous to each other.

Erxleben, mam. 509. n. 5. Schreber, iii. 387. t. ci.

Uncia. Caj. op. 42. Gefn. quad. 825.—Leopard. Sm. Buff. v. 167. pl. cxiii. Penn. hist. of quad. n. 154.

Inhabits the warmer regions of Africa, especially on the west side, in Senegal and Guinea; is also found in Asia, on the mountains of Caucasus, and all the way from Persia to China, and in Arabia.—This species is not much larger than the last described, being about four feet long, and the tail from two to two and a half feet. The manners and dispositions of the Leopard resemble those of the Ounce, being greatly more mild and gentle than those of the Panther. The ground colour of the hair on the back and sides is yellow, beautifully marked with numerous small annular, or rose-like, black spots, situated close to each other, each being composed of four or five single small spots; the spots on the face and legs are single; the breast and belly are covered with longer hairs than the rest of the body, which are of a whitish colour; the tail is marked with large oblong spots, and is of an equal thickness from the origin to the extremity. The flesh of this species is eaten by the Negroes, and is said to be as white as veal, and very well tasted.

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6. Lesser Leopard.—*Felis Leopardalis*.

Like the former, but much smaller, and having a large black spot on each side of the upper lip. Penn. hist. of quad. n. 155.

This species was kept, some years ago, in the Tower of London, and was said to have come from the East Indies.—The size is very small, not being half so large as the Leopard; the tail is likewise shorter, in proportion to the size of the animal, and tapers to a point; the back, sides, and rump, are covered with bright yellow hair, marked with small circular compound spots; the belly is white, and spotted with black; the face is spotted, having a white chin; and the breast is marked with small spots.

7. Jaguar.—6. *Felis Onca*. 4.

Of a yellowish colour, marked with cornered annular spots, which are yellow in the middle. Schreber, iii. 388. t. cii.

Felis onca. Briff. quad. 196. Brown's nat. hist. of Jamaica, 485.—Brazilian *Pardus*, or *Lynx*, called Jaguar by the natives, and Onza by the Portuguese. Raj. quad. 168.—Tlatlahqui ocelotl, or Mexican Tiger. Hernand. Mex. 498.—Jaguara. Marcgr. Brasil. 235. Pif. ind. 103.—Large Tiger, named Royal Tiger, by the Portuguese. Perr. anim. iii. 287.—Jaguar. Sm. Buff. v. 187. pl. cxiv.—Brazilian Tiger. Penn. hist. of quad. n. 158. pl. xxxi. fig. 1.

Inhabits the hottest parts of America, from Mexico to Buenos Ayres.—This species grows to about the size of a Wolf, or large Dog, and sometimes larger. In manners and cruelty, though not in courage, it resembles the Tiger, lying in wait for its prey and leaping on it, by surprise, with three vast bounds. It fastens on the shoulders of horses, and other large animals, and is of such amazing strength as to carry off animals three times its own size. It is said to be fond of human flesh, and that, when it has once tasted of this, it is rapacious of it for ever after; and is believed to prefer Negroes to Europeans, and these to American Indians. It even preys on fishes, and is said sometimes to attack the Alligator, fastening its claws into the eyes of that reptile, which instantly plunges into the water, where both usually perish. The Jaguar is much afraid of fire, and is very cowardly, being easily put to flight, even by shepherd dogs; it makes a great noise in the night, like the howling of a hungry dog. The ground colour of the upper part of the body is yellowish, and marked with eye-like black spots, composed of smaller spots arranged in a circular figure, many of which are open in the middle, while others have a single spot in the center; the belly is white, and spotted with black, as are the legs with smaller spots; the tail is only half the length of the body, and is marked with long black spots.—Dr Gmelin supposes that the animal named *Guigna* in Chili, which is described as of the Feline kind, having a long tail, and marked on the body with circular spots, may be considered as a variety of this species.

8. Ocelot.—7. *Felis Pardalis*. 5.

The upper part of the body is marked with long stripes, and the sides and lower parts with round spots. Schreber, iii. 390. t. ciii.

Felis Pardalis. Briff. quad. 199.—Tlacoozelotl, or Tlalocelotl. Hernand. Mex. 512.—Ocelot, or Mexican Cat. Sm. Buff. vii. 243. pl. ccxxxv. and ccxxxvi. Penn. hist. of quad. n. 159. pl. xxxi. fig. 2.

Inhabits the hotter parts of America, particularly Terra firma, California, and New Spain.—The Ocelot, when full grown, is about two feet and a half high, and four feet long. He is a cruel and voracious animal, which cannot be tamed, yet so cowardly that he flies from dogs and from men, running up trees for safety. Is said to extend himself, as if dead, on the boughs of trees, to deceive the monkeys, which, prompted by curiosity, approach so near as to get within reach of his claws. The upper parts of the body are of a bright tawny colour, and the lower parts whitish; all the upper parts being beautifully marked with black spots and stripes disposed horizontally, while the legs and belly are only spotted; the sides are striped with broad tawny and white lines; the ears are short, and are double at the edges, but without pencils of hair; there are five claws on the fore, and four

four on the hind paws; the tail is marked with circular bars; the mouth is ornamented with four rows of long whiskers, having from three to five hairs in each row; these are as long as the head, of a white colour, but black at the roots.

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9. Guepard.—8. *Felis jubata*. 11.

Of a tawny brown colour spotted with black, having a mane on the neck. Erxleb. mam. 510. Schreber, iii. 392. t. cv.

Felis jubata. Briff. quad. 271. n. 10.—Tyger-Wolf. Kolben, Cape.—Guepard. Sm. Buff. vii. 251.—Hunting Leopard. Penn. hist. of quad. n. 156. pl. xxx. fig. 1.

Inhabits the south of Africa, and India.—This species is of a long make, with a narrow chest and long legs, and is about the size of a large Grey-hound. The neck is provided with a mane four or five inches long; and the hair on the belly is about the same length: The fur is of a pale yellow colour, and speckled with small, single, black spots. In India, this animal is tamed, and bred to the chase of Antilopes, being carried to the field, in waggons, chained and hoodwinked, till it is let loose upon the herd, which it attacks at unawares, stealing along, and concealing itself till it gets a proper opportunity, then darts forwards, with astonishing velocity, for five or six vast leaps; but if this does not succeed it becomes breathless and gives up the pursuit, returning peaceably to its master.

270

10. Jaguarete.—9. *Felis discolor*. 12.

The body is mostly of a black colour. Schreber, iii. 393. t. civ. B.

Felis nigra. Erxleb. mam. 512. n. 8.—Jaguarete. Marcgr. Bras. 235. Pifo Ind. 103. Raj. quad. 169.—Once. Des Marchais, voy. iii. 300.—Black Cougar. Sm. Buff. v. 201. pl. cxx.—Black Tiger. Penn. hist. of quad. n. 161. pl. xxx. fig. 2.

Inhabits South America.—This is a fierce, strong, and rapacious animal, which, when full grown, is as large as a calf of a year old. The hair is short, very smooth, and of a brownish black colour; the lips, the feet, throat, breast, belly, and insides of the legs and thighs, are whitish. This animal is mostly of a uniform colour, but is sometimes marked with spots of a full black colour.

271

11. Puma.—10. *Felis concolor*. 9.

The body is of a reddish tawny colour, without spots. Mantiff. pl. ii. 522. Schreber, iii. 394. t. civ. A.

Felis fulvo-rufescens. Briff. quad. 272. n. 11.—Puma, or American Lion. Hernand. Mex. 518.—Cuguacuarana. Marcgr. Bras. 235. Raj. quad. 169.—Cuguacuara. Pifo Ind. 103.—Panther. Lawfon, Carol. 117. Catesby, app. xxv.—Brown Tiger. Barrere, Fr. equin. 166.—Cougar. Sm. Buff. v. 197. pl. cxvii. and cxviii.—Puma. Penn. hist. of quad. n. 160. Arct. zool. n. 14.

Inhabits America.—This animal is nearly of the same size with the Jaguar, being about as big as a large Wolf: It is fierce and cunning, but will hardly venture to attack mankind: It climbs trees, from whence it drops down on such animals as happen to pass. The fur is of a uniform lively red colour, tinged with black, and having no spots; the chin, throat, and inferior parts of the body, are whitish;

whitish; the head is very small, with large eyes, and somewhat pointed ears; the teeth are very large; the claws are white, the outmost claw on each fore foot being larger than the rest; the body is long, being five feet three inches from the nose to the tail, which is two feet eight inches long.

272

12. Cougar.—*Felis Cougar.*

The body is remarkably thin and long.

Cougar of Pennsylvania. Sm. Buff. v. 200. pl. cxix.

Inhabits the mountains of Pennsylvania, Virginia, Carolina, and Georgia, in North America.—The body, from the nose to the tail, is five feet four inches long; the tail two feet six inches; the fore part of the body is one foot nine inches high: It is of a reddish tawny colour above, and whitish on the lower parts of the body.

273

13. Margay.—11. *Felis tigrina.* 13.

The body is tawny on the upper parts, and marked with black streaks and spots; the lower parts are whitish. Erxleb. mam. 517. n. 11. Schreber, iii. 396. t. cvi.

Felis griseo-flavescens, of a yellowish grey colour marked with black spots. Briff. quad. 193.—Wild Tiger-Cat. Barrere, Fr. equin. 152.—Maraguo, or Maracaja. Marcgr. Bras. 233.—Tepe Maxtlaton. Fernand. nov. hisp. 9.—Margay. Sm. Buff. vii. 249. pl. ccxxxvii.—Cayenne Tiger-Cat. Penn. hist. of quad. n. 163.

Inhabits South America.—Is about the size of a Common Cat, and has nearly the same voice, but is not capable of being tamed: It lives much on trees, preying on birds, and is very active, going by leaps or bounds.

274

14. Mexican Tiger-Cat.—*Felis mexicana.*

Of a blue grey colour, marked with short black streaks. Penn. hist. of quad. n. 167.

Inhabits New Spain.—This animal is about four feet long, from nose to tail, and three feet high; the tail is shorter, in proportion, than any of this division of the genus; the eyes are small; the hair is very strong.

275

15. Bengal Tiger-Cat.—*Felis bengalensis.*

The upper parts of the body are of a pale yellowish brown colour, having three rows of short black stripes along the back, and a black perpendicular stripe behind each shoulder. Penn. hist. of quad. n. 164.

Inhabits Bengal.—This is a very elegant animal, which is rather less than the Common domestic Cat: The head, upper jaw, sides of the neck, the back, and the sides, are of a beautiful pale yellowish brown colour; the head and face are striped downwards with black; three rows of short black streaks run along the back pointing towards the tail; a black line is placed behind each shoulder pointing downwards; the chin and throat are white, and surrounded with a black semicircle; the breast,

breast, belly, and insides of the limbs, are white, and these, with the legs and rump, are marked with round black spots; the ears are large, and of a dusky colour, having a white spot on the middle of each on the outside; between each eye and the nose is a white line, and another beneath each eye; the whiskers are white; the tail is long, full of hair, of a brown colour, and annulated with black. This animal swam on board a ship at anchor off the coast of Bengal, and produced young afterwards with female Cats in England.

276

16. Cape Tiger-Cat.—13. *Felis capensis*. 14.

The body is of a bright tawny colour, marked on the back with oblong black streaks, and on the sides with numerous small round black spots.

Cape Tiger-Cat. Penn. hist. of quad. n. 162. Forster, Phil. Transf. vol. lxxi. p. 1. n. 1. t. 1.—Nufsi. Labat, Æthiop. i. 177.

Inhabits the woody mountains at the Cape of Good Hope.—The specimen seen and described by Mr Pennant was near three feet long from the nose to the origin of the tail; the face was marked with black stripes pointing downwards; the belly white; the tail long, of a bright tawny colour, and spotted with black; the ears are marked with a semilunar white spot: This animal is of mild dispositions, and is easily tamed; its manners resemble those of the Common Cat; and, in its native woods, it preys on hares, jerboas, and antilopes.

277

17. Manul.—14. *Felis Manul*. 15.

The tail is surrounded with black rings; the head is spotted with black, and has two very distinct black streaks on each side. Pallas itin. iii. 692. n. 2.

Inhabits the wastes of Mongul-Tartary, especially in the vicinity of the Selenga and Dschida rivers, and all the middle of northern Asia, from the Ural to the Amur.—This species is about the size of a Fox, and preys chiefly on the Daurian hare, and other small quadrupeds; it loves open, woodless, and rocky countries: The general colour of the body is tawny, mixed with a few white and brown hairs; the head is large, and is speckled on the crown with black; the cheeks have two dusky lines running obliquely downwards from the eyes; the feet are striped obliquely with black lines; the tail is of an equal thickness, and is surrounded with ten black rings, the three outermost of which are almost contiguous; the limbs are very strongly made.

278

18 Serval.—15. *Felis Serval*. 16.

The upper part of the body is tawny, with white round the eyes; the belly is white; the tail short; and the whole body is spotted with black. Erxleb. mam. 523. Schreber, iii. 407. t. cviii.

Chat-pard, or Tiger-Cat. Perr. anim. i. 108. t. 13.—Serval, or Mountain Cat. Sm. Buff. vii. 240. pl. ccxxxiv.

Inhabits India and Thibet.—This animal is chiefly found in trees; it flies from mankind, unless when attacked, and cannot be tamed. The eyes are extremely brilliant; the whiskers are long and stiff;

stiff; the tail is very short, reaching only to about the middle of the hind legs. The Serval inhabits the mountains of India, remaining almost always on trees, where he makes his nest, leaping with great agility from tree to tree, and preying on birds: The inhabitants of Malabar call this animal Marapute or Maraputa.

19. Common Cat.—12. *Felis Catus*. 6.

Has a long annulated tail.

Felis, or *Cat*, having a long tail and smooth rounded ears. Faun. Suec. 3.

Inhabits the woods of Europe and Eastern Asia, and is domesticated almost every where.—When tranquil the Cat makes a peculiar noise, called *purring*, and erects the tail, waving it about; it is exceedingly active in all its motions, and climbs trees with great facility; when irritated, it makes a peculiar hissing noise, spits, and strikes with the fore feet, at which time the breath smells strongly of musk: The eyes shine in the dark, and, during the day, the pupils are perpendicularly oblong and narrow, but, in the dark, they are round and very wide; the claws are hooked, strong, and very sharp pointed, but, being retractile, are always kept in their sheaths when the animal walks: The eructations of this animal are extremely fetid; the urine of the male is corrosive, and has a very disagreeable odour; and it always buries the excrement. The amours of the Cat are carried on with strange quarrellings, and a horrible mewling noise; but it is very playful with its kittens, which it summons by a peculiar cry, or with any thing trailing along the ground: When watching for prey, it moves the tail from side to side; it preys mostly on mice and rats, and, when in the wild state, on many kinds of small quadrupeds, and on birds; it eats all kinds of flesh and fish, but rejects hot things, salted meat, and vegetables, and drinks sparingly. On the approach of stormy weather, the Cat washes its face with its fore paws, licking them with its tongue. The fur is electrical, when rubbed in the dark, especially when placed on silk; and it is not infested with fleas. It engenders in the beginning of spring; the female goes sixty-three days with young, and brings forth from three to six kittens, which are blind for nine days after birth. It is particularly fond of Marum, Valerian, and Catmint. When thrown from a height, the Cat always lights on its feet, and is proverbially tenacious of life, being said to have nine lives. The Cat is a useful but deceitful and thievish animal, of which many people have a strong but unaccountable dislike.

There are many varieties found in different parts of the world, which will not admit of any systematic description; but the following are those which are best marked.

α. Wild Cat.—*Fel. Catus ferus*. 6. *α*.

Has a long tail, annulated with brown bars; the body is marked with blackish stripes, of which three are disposed longitudinally on the top of the back, while those on the sides are perpendicular or spiral. Schreber, iii. 397. t. cvii. A. a.

Cat, *Felis*, variegated with yellowish brown and whitish; the tail being barred alternately with blackish and dirty white. Briff. quad. 192.—*Felis sylvestris*, *Catus sylvestris*, Chat sauvage, or Wild Cat. Aldrov. 582. fig. p. 583. Jonst. quad. 127. t. 72. Gefn. quad. 352. Klein. quad. 75. Sm. Buff. iv. 49. pl. xlv.—Wild Cat. Penn. hist. of quad. n. 166. BRIT. ZOOL. i. 67.—Wilde Kaze. Ridinger, wild. th. t. 240.

280

β. Domestic Cat—Fel. Catus domesticus. 6. β.

Is of a smaller size than the wild varieties, having the hair shorter and thicker.
Schreber, iii. 397. t. cvii. B. 1.

Felis domestica, *Felis*, *Catus*, *Chat domestique*, or *Domestic Cat*. Briff. quad. 191. Aldrov. 564. Gesn. quad. 344. fig. p. 345. Jonst. quad. 126. t. 72. Raj. quad. 170. Sm. Buff. iv. 49. pl. xlvii. Penn. hist. of quad. n. 266. BRIT. ZOOL. i. 69.

This is subject to endless variety in colour, like most domestic animals.

281

γ. Angora Cat.—Fel. Catus angorensis. 6. γ.

Is covered with long, silky, silver coloured hair, which is longest on the neck.
Schreber, iii. 398. t. cvii. B. 2.

Briff. quad. 266. n. 4.—*Chat d'Angora*. Sm. Buff. iv. 49. pl. 1.—*Angora Cat*. Penn. hist. of quad. n. 166. α.

This variety is exceedingly beautiful, but degenerates, after the first generation, when brought to Europe, from Angora, in Asia Minor, which is its native country.

282

δ. Tortoise-shell Cat.—Fel. Catus hispanicus. 6. δ.

Is variegated with black, white, and orange coloured irregular blotches.

Sm. Buff. iv. 49. pl. xlviii. Penn. hist. of quad. n. 166. β.

Inhabits Europe, chiefly in Spain.

283

ε. Blue Cat.—Fel. Catus caeruleus. 6. ε.

The whole fur is of a blue grey.

Chartreux Cat. Sm. Buff. iv. 49. pl. xlix.—*Blaue Kaze*. Kolbe, Vorgeb. 153.—*Blue Cat*. Penn. hist. of quad. n. 166. γ.

Inhabits Europe and Siberia.—This is commonly called the Cyprus Cat.

284

ζ. Red Cat.—Fel. Catus ruber. 6. ζ.

Has a red stripe along the back, beginning from the head.

Rotte Kaze. Kolbe, Vorg. 153.

Inhabits the Cape of Good Hope.

285

η. Chinese Cat.—Fel. Catus sinensis.

The ears are pendulous, and the hair is bright, shining, and variegated with black and yellow.

Sumxi. Sm. Buff. iv. 60. and 64.

Inhabits China.

286

θ. Long-headed Cat.—*Fel. Catus aureus*.

Of a reddish yellow colour, having a long shaped head with a sharp snout, short legs with weak claws, and round, flat ears.

Penn. hist. of quad. n. 166. 2. Seba, muf. i. 76. tab. xlvii. fig. 1.

Inhabits New Spain.

287

ι. Saca.—*Fel. Catus madagascarensis*.

Has the tail twisted. Sm. Buff. iv. 65.

This is a beautiful variety, which inhabits the island of Madagascar.

L Y N X E S.—L Y N C E S.

** Having short tails, and the ears pencilled at the tips.

288

1. Caspian Lynx.—16. *F. Lynx Chaus*. 17.

The tail is annulated near the end, and tipped with black; the body is of a brownish yellow colour; the ears are reddish on the outside, and tipped with a pencil of black hairs.

Guldenstedt, Nov. com. Petrop. x. 483. t. xiv. and xv. Schreber, iii. 414. t. cx. B.

Caspian Lynx. Penn. hist. of quad. n. 172.

Inhabits the reeds and woods, in the marshy places on the western side of the Caspian, particularly on the river Terek, near the castle of Kislar; in the Persian provinces of Ghilan and Masfenderan, and about the mouth of the Kur.—This is a very ferocious animal, about two and a half feet long, and nineteen inches high, the tail being eleven inches in length: In manners, voice, and mode of feeding, it resembles the Wild Cat very much; it never comes near inhabited places, and seldom climbs trees; it conceals itself in the day, and wanders about during the night through the fields and swamps, feeding on fish, mice, rats, and birds, which it seizes by surprise.

289

2. Mountain Lynx.—*F. Lynx montana*.

Has upright pointed ears marked with two brown transverse bars. Penn. hist. of quad. n. 168.

Chat-pard. Mem. pour servir a l'hist. nat. i. 110.—*Catus pardus*, *Catus montanus*, or Cat-a-mountain. Raj. quad. 169. Lev. muf. Arct. zool. n. 17.

Inhabits North America.—This species is of mild and gentle manners, and grows very fat: It is about two feet and a half long from nose to tail; the head and whole upper parts of the body are of a reddish brown colour, with long narrow stripes on the back, and numerous small round spots on the sides and legs; the belly is whitish; the chin and throat are pure white; the tail is eight inches long, and is barrèd with black.

290

3. Persian Lynx.—17. *F. Lynx Caracal.* 18.

The body is of a pale reddish brown colour; the ears are black, and tufted with black hairs. Schreber, iii. 413. t. cx.

Siyah-ghush. Carleton, ex. 21. t. p. 23. Raj. quad. 168. Phil. Transf. li. p. 2. 648. t. 14. Klein quad. 77.—Caracal. Sm. Buff. v. 221. pl. cxxiii.—Persian Lynx. Penn. hist. of quad. n. 173. pl. xxxii. fig. 2.

Inhabits Persia, Barbary, Arabia, and India.—This animal is about the size of a Fox, but much stronger and more ferocious, having been known to attack a middle sized dog, and tear him to pieces, in spite of every resistance; it is difficult to tame, but, when taken young, is bred to hunting, in which it is very expert, catching hares, rabbits, and even large birds, which it surprises with great address: It is said to follow the Lion, to feed on his offals; but dares not do the same with the Panther, which is cruel after being gorged; whereas the former does no injury unless when hungry. The head is small, and the face long, having long slender black ears, which are white on the inside and at their bases, and are terminated with a long pencil of black hairs; the nose is white; the eyes are small; the upper part of the body is of a very pale reddish brown; the tail darker; and the breast and belly whitish; the hind part of each foot is marked with black.

The three following animals are by some authors considered as varieties of this species, under the general name of *Caracal*.

291

4. Bengal Lynx.—*F. Lynx bengalensis*.

The tail is as long as the hind legs.

Bengal Caracal. Sm. Buff. v. 225. pl. cxxiv.

Inhabits Bengal.—The drawing of this animal was sent by Mr Edwards to the Count de Buffon, who gives no farther information respecting it, than that the tail and limbs are much longer in proportion than those of the former species.

292

5. Booted Lynx.—*F. Lynx nubiensis*.

The back parts of all the legs are black, and the extremity of the tail has four black rings.

Nubian Caracal. Sm. Buff. v. 224.—Lybian Lynx. Penn. hist. of quad. n. 173. p. —Booted Lynx. Bruce, Abyss. v. 146. and fig.

Inhabits Lybia, Barbary, and Ras-el-Fel in Nubia.—This animal is only twenty-two inches long, from the tip of the nose to the origin of the tail; the back, neck, and legs are of a dirty grey colour; the belly is of a dirty white, with undefined red marks or stains: It feeds much on Guinea fowls, and on the offals of beasts left by the hunters, or by other beasts of prey.

293

6. Barbary Lynx.—*F. Lynx lybiensis*.

Has a white tail, furrounded with four black rings near the extremity.

Lybian Caracal. Sm. Buff. v. 224.

Inhabits

Inhabits Lybia near the ancient Capſa.—The infides of the ears are white, the outfides are covered with buſhy hair of a lively red colour, and the points are tufted with thin ſhort black pencils; the feet have black patches behind like thoſe of the Booted Lynx: It is about the ſize of a Common domeſtic Cat, and does not appear to differ very much from the former ſpecies.

294

7. Common Lynx.—19. *F. Lynx vulgaris*. 7.

The tail is obſcurely annulated and black at the tip; the head and body are of a greyiſh colour tinged with red, and obſcurely marked with duſky ſpots. Schreber, iii. 408. t. cix.

Felis Lynx, having a ſhort tail with a black tip; and tufted ears. Syſt. Nat. ed. xii. 1. p. 62. n. 7. —Having a ſhort tail, and the body of a reddiſh colour with duſky ſpots. Faun. Succ. i. n. 4. It. Wyoth. 222.—Having the ears tufted at their tips with very long hairs, and a ſhort tail. Briff. quad. 200.—*Dafypus pinuum*. Nieremb. hiſt. nat. 153.—*Lupus Cervarius*. Gefn. quad. 677. Tournef. voy. ii. t. 193.—*Luchs*. Ridinger wild. thierr. 22.—*Lynx*. Aldrov. 90. Raj. 166. Jonſt. 83. t. 71. Sm. Buff. v. 206. pl. cxxi. Penn. hiſt. of quad. n. 170. Arct. zool. n. 15.

295

β. White Lynx.—*F. Lynx vulg. albus*.

Of a white colour, with duſky ſpots. Faun. Succ. i. 2. n. 5. and ii. 5. n. 11. Klein, quad. 77. Briff. anim. 274. n. 14.

296

γ. Yellow Lynx.—*F. Lynx vulg. melinus*.

Of an uniform whitish yellow on the upper parts and white beneath; the ears tipped with black. Penn. hiſt. of quad. p. 279.

297

δ. Thibet Lynx.—*F. Lynx vulg. maculatus*.

Of a yellowish white colour with duſky ſpots. Penn. hiſt. of quad. p. 280.

Inhabits Europe, America, the north of Aſia, and Japan.—The Lynx keeps moſtly in the receſſes of the thickeſt forests, preying on deer, martins, and various kinds of weaſels, cats, ſquirrels, birds, and even on its own kind, when preſſed with hunger, and attacks ſheep and goats and cots: It is a very cunning animal, poſſeſſed of very acute ſight and ſmell, and attacks by ſurpriſe. It engenders in February, and, after nine weeks, the female brings three or four young ones at a litter: It is about the ſize of a Fox, though ſome are conſiderably larger, and of *Wulf-luchs* from the Germans; the ſecond variety, or White Lynx, is rather ſmaller.

298

8. Canadian Lynx.—*F. Lynx canadensis*.

Of a greyiſh colour mixed with white, and diſtinctly ſpotted with black. Penn. hiſt. of quad. p. 217. pl. cxxii.

Inhabits Canada.—This animal is only about a foot high; the general colour is greyish, mixed with white; the head is in some places striped with black, and the whole body is spotted, in some places darker than others; the tip of the nose, margin of the lower jaw, and outer edges of the ears are black; the tail is thick, very short and bushy, of a reddish white colour at the root, and black on the outer half; the under part of the belly, the hind legs, insides of the fore legs, and the feet, are of a dirty white.

299

9. American Lynx.—18. *F. Lynx rufa*. 19.

The lower side and tip of the tail are white, and the upper side is barred with black; the body is of a deep bay, obscurely marked with dusky spots. Schreber, iii. 412. t. cix. B.

Bay Lynx. Penn. hist. of quad. n. 171. pl. xxxii. fig. 1. Arct. zool. n. 16.

Inhabits the inner parts of the state of New York.—This animal is about twice the size of a Common domestic Cat: The fore-head is marked with perpendicular stripes; the upper lip, on each side, has three rows of minute black spots; the cheeks are marked with several crooked stripes; the whole under parts of the body and insides of the legs are white, except the upper part of the fore legs, on the inside, which have two black cross bars.

XVI. FITCHET.—15. *VIVERRA*. 14.

Has six fore-teeth in each jaw; of those in the lower jaw the intermediate teeth are shorter than the rest: On each side of each jaw is one tusk, longer than the other teeth: There are more than three grinders on each side of each jaw. The tongue, in several species, is beset with sharp pointed papillae, which stand backwards. The claws are not retractile.

The animals of this genus have long bodies of an uniform thickness, with short legs; which, for the most part, have five toes on each foot, armed with claws which are not retractile. The ears are short and small, and the snout is produced and sharp. Between the anus and genitals, is an orifice, which leads to a follicle, or receptacle, containing a fetid unctuous matter. All the species are active and nimble; some walk on a lengthened foot as far as the heel, some climb trees, and some dig in the earth. The females have all numerous litters.—Perhaps the Suricate, and the two Coatis, together with the Poto, ought to be arranged along with the Badger.

300

1. Egyptian Ichneumon.—1. *Viverra Ichneumon*. 1.

The tail is very thick at the root, and tapers gradually to the point, which is tufted; the inner toes are somewhat remote from the rest. Schreber, iii. 427. t. cxv. B.

Mustela

Mustela variegata, or Weasel, variegated with black and white. Briss. quad. 181.—Badger, *Meles*, having the middle toes longer than the rest, the outer ones of an equal length, and the claws nearly equal. Hasselq. it. 191.—Ichneumon, called Pharaoh's Rat, by the Egyptians. Belon. obs. 95.—Ichneumon, or Egyptian Otter, *Lutra aegyptiaca*. Aldrov. 298. fig. p. 301.—Ichneumon. Gefn. quad. 566. Alpin. hist. Ægypt. 234. t. 14. f. 3. Maillet desc. de l'Égypt. 90. t. 88. Schaw's trav. ii. upper fig. p. 74. Penn. hist. of quad. n. 211. z.—Great Mangouste. Sm. Buff. vii. 210. pl. ccxxiii.

Inhabits Egypt on the banks of the Nile, and retires to the fields and gardens during the inundation of that river.—This is a fierce and cunning animal, but may be tamed, and is often kept in houses instead of cats: It steals towards its prey, and seizes it by surprise, living on mice and rats, poultry, worms, insects, several kinds of amphibious animals, serpents, frogs, lizards, the eggs of the crocodile, and even the young of that animal; it is a great enemy to weasels and cats, both of which it destroys when they come in its way. From its great utility in destroying various noxious reptiles, and especially from its greatly diminishing the number of crocodiles, by feeding on their eggs, this animal was worshipped by the ancient Egyptians as a deity. The Egyptian Ichneumon is about the size of a Common domestic Cat, but is longer in the body, and has shorter legs in proportion; the forehead is flat; the ears, small, rounded, and almost naked; the nose is long and slender, with a small mouth, having a single row of whiskers at the margin of both lips, towards the cheeks; the upper lip is prominent, and the tongue is rough; the tail is about the same length with the body; the hair is coarse, rough, and often curled, and is barred alternately with white and dusky: Under the tail, both the male and female have a remarkable aperture, leading to a kind of pouch where an odoriferous liquor is secreted; which passage they are said to open when too warm.

2. Indian Ichneumon.—2. *Viverra Mungo*. 7.

The tail is very thick at the origin, and tapers to a point which has no tuft; the inner toes are somewhat remote from the rest. Schreber, iii. 430. t. cxvi. A. and B.

Viverra Ichneumon. β. Syst. nat. ed. xii. 1. 63.—*Mustela glauca*. Syst. nat. ed. v. Amoen. ac. ii. 109.—Reddish-grey *Viverra*. Briss. quad. 177.—*Mustela*, or *Viverra Mangutia*, so called by the Indians. Kaempf. amoen. 574.—Quil, or *Quiopela*. Garcias, arom. 214. Raj. quad. 197.—*Moncus*, *Serpenticida*, or *Serpent-killer*. Rumpf. herb. amboin. 69. t. 72. f. 2. 3.—Indian Ichneumon. Edw. av. 199. t. 199. Voefmaer desc. Amst. 1772-4. S. G. Gmelin it. iii. t. 30. Penn. hist. of quad. n. 211. β.—Lesser Mangouste. Sm. Buff. vii. 210. p. ccxxii.

Inhabits Bengal, Persia, and other hot countries in Asia.—This animal is smaller and smoother than the Egyptian species, but agrees with it in manners, form of body, and way of living. It gives battle to serpents, and even attacks the naja, or cobradi capello, one of the most deadly of that poisonous race; and, when bitten by their poisonous fangs, it is said to prevent the deadly effect by eating the root of the *Ophioriza*. It is very much afraid of wind, and impatient of cold; is a cleanly animal, which may be tamed, and taught to follow his master like a Dog. The Count de Buffon considers this and the former as the same species of animal, only differing in size.

3. Cafrarian Ichneumon.—3. *Viverra cafra*. 8.

The tail is thick at the origin, and gradually tapers to a point, which is black. Schreber, iii. 434. n. 2.

Inhabits

Inhabits the country at the Cape of Good Hope.—This animal is similar in form to the Polecat, but larger, being near two feet long: The ears are very short and hairy; the mouth is garnished with a single row of blackish whiskers; the hair is coarse, shining, and is mixed with yellow, brown, and black colours; the feet are black.

303

4. African Ichneumon.—*Viverra Nems*.

The tail is thick at the base, and tapers to a point, of the same colour with the rest.

Neipfe, Nems, or Nims. Sm. Buff. vii. 221. pl. ccxxiv.

Inhabits the eastern part of Africa.—This species is about thirteen inches long, from the muzzle to the origin of the tail, which is twelve inches in length; the fore parts of the body are five and a half, and the hinder parts six and a half inches high; the muzzle is very sharp, and has no whiskers; the ears are short and naked; the whole upper parts of the body are covered with long coarse hair, of a mixed dark brown and dirty white colour; the belly is of a bright yellow; the head and space round the eyes are yellowish; the nose and cheeks are covered with short brown hair of various shades; the legs are covered with short hair of a deep yellow colour; on each paw are four toes, with a small one behind the rest, and the claws are small and black.

304

5. Zenik.—4. *Viverra Zenik*. 27.

Has only four toes on each foot: The body is of a grey colour, having ten transverse black streaks; the tail is of a dark reddish brown colour, and is black at the point. Sonner. It. ii. 145. t. 92.

Inhabits the country of the Hottentots.—The Zenik is about the size of the Water Rat, being about seven inches long: The claws on the fore feet are very long, and almost straight; those on the hind feet are short, and hooked; the tail is slender; the snout long; and, according to Sonnerat, there are only two fore-teeth in each jaw, together with six tusks.

305

6. Surikate.—5. *Viverra tetradactyla*. 9.

Has only four toes on each foot; the nose is long and flexible. Schreber, iii. 434. t. cxvii.

Four-toed Weasel. Miller, on var. sub. T. xx. Penn. hist. of quad. n. 212.—Surikate. Sm. Buff. vii. 166. pl. ccxv.—Klapper-maus, Meer-Rat, or Suracatje *. Pallas, Miscel. zool. 59. 60.

Inhabits the south of Africa, and the island of Java.—Is about a foot long from nose to tail, which is about eight inches long: It feeds on animal food, and eats raw flesh; being particularly fond of chickens, eggs, and fish; it burrows in the ground, digging the earth with its fore feet; is easily tamed, and in that state is of gentle manners. The head is depressed; the muzzle is very sharp pointed, the upper jaw being much longer than the lower, and the tip of the nose is black; the cheeks are inflated; the mouth is surrounded with black whiskers, which grow from warty tuberosities; the ears are black, small, rounded, and flat; the back is broad and rounded; the belly broad and flat; the

* Vide note to the Palm Squirrel.—T.

the legs are short, with small feet, having long claws before and short behind; the hairs on the upper part of the body are brown near the bottom, black on their upper parts, and hoary at the tips; the hair on the back is undulated; the inside of the legs is yellowish brown; the tail is thick at the base, ends abruptly, and is tufted with black: It makes a grunting noise, is much in motion, and often sits upright, with its fore legs hanging down; and when pleased makes a noise like that of a small rattle rapidly turned.

7. Coati.—6. *Viverra nasua*. 2.

Of a dark brown colour; the tail is surrounded with alternate white and brown rings; the nose is long and flexible. Schreber, iii. 436. t. cxviii.

Long-nosed Bear, having a long flexible nose, and the tail variegated with different coloured rings. Briff. quad. 190.—*Vulpes minor*, Lesser Fox, or Quachy, having the upper jaw and nose considerably lengthened, and the tail variegated with dark brown and white alternate rings. Barrere, Fr. equin. 167.—Coati. Marcgr. Bras. 228.—Coati-mondi. Act. Paris. iii. P. 3. p. 17. t. 37. Raj. quad. 180. Houttuyn, zamenstel ii. 238. t. 15. f. 2.—Black Coati. Sm. Buff. v. 53. pl. civ.—Brazilian Weefel. Penn. hist. of quad. n. 215.—Guiana Badger. Bancroft, Guian. 141. Lev. Mus.

Inhabits South America.—The Coati is about the size of a Hare, being eighteen inches long from the point of the nose to the origin of the tail, which is thirteen inches: The general colour of the hair is dark brown, like that of a Fox, having white spots above, below, and at the side of the eyes; the hair on the back is somewhat harsh, but on the rest of the body it is smooth, soft, glossy, and close set; on the belly, the breast, and under the jaws, it is whitish; the ears are small, rounded, and black on their upper parts; above the upper eye-lids, below the eyes, on the cheeks, and below the chin, are wattles or hairy warts; the muzzle is lengthened into a long, black proboscis or snout, which is moveable in every direction, having the point as if cut off in an oblique direction inwards, and wanting the usual furrow on the upper lip: Of the fore-teeth, the lateral ones in the upper jaw are larger than the rest, and the middle ones below are convergent; the tongue is divided by fissures into lobes, like an oak leaf; the tail is carried high, is almost as long as the body, is of a brown colour, having ten pale or whitish rings, is flattened so that the hairs shed a little outwards, and is narrowed or compressed at the point; the feet rest on the heel, which is broad: It is by no means nimble, but readily climbs trees; each foot has five toes, the pollex, or inner toe, being in the same line with the rest, and the claws are compressed and sharp pointed: This animal digs remarkably well, searching for earth worms, on which it feeds, as likewise on mice, apples, bread, eggs, and poultry; when irritated it gives out a most intolerably stinking odour.

8. Coati-mondi.—7. *Viverra narica*. 3.

Of a hoary brown colour; having the tail of the same colour with the body, and the snout long and flexible. Schreber, iii. 438. t. cxix.

Long-nosed Bear, having the snout long and flexible, and the tail of a uniform colour. Briff. quad. 190.—Dusky Brazilian Weefel. Penn. hist. of quad. n. 215. β.—Brown Coati. Sm. Buff. v. 53. pl. cv.—Coati-mondi. Marcgr. Bras. 228.

Inhabits South America.—This animal is rather larger than the former, from which it differs principally in colour; sometimes the tail of this species, or variety, is obscurely annulated: The hairs on the back and sides are dusky at the roots, brown in the middle, and tipped with yellow; the chin, throat, sides of the cheeks, and belly are yellowish; the feet are black and naked: The Coati-mondi digs so deeply as to bury the whole body, except a small part of the tail; it likewise climbs trees, and even takes the water in search of food, living on worms, bread, fruits, roots, eggs, small animals, and birds.

308

9. Coaffe.—8. *Viverra vulpecula*. 10.

Is entirely of a brown or chestnut colour, having a long snout. Schreber, iii. 440. t. cxx.

Yzquiepatl, or Little Fox, which resembles the colour of roasted Maize or Coffee. Hernand. Mex. 332. Raj. quad. 181.—Coaffe. Sm. Buff. vii. 295. pl. ccxli.

Inhabits the southern states of North America, Louisiana, New Spain, and Mexico.—The Coaffe is about sixteen inches long from the nose to the origin of the tail; the head is of a conical form, with a projecting snout of a moderate length, having black whiskers; the whole body is covered with long, thick, and coarse hair, which is of a uniform brown or chestnut colour; the tail is longer than the hind legs, bushy, and of the same colour with the body; the legs are short; the feet are large and naked, having four toes on the fore feet; the claws are black and sharp pointed: When irritated or frightened, this animal emits a most fetid odour; and the urine stains and infects whatever it touches, almost indelibly, with this abominable scent: It lives in the holes and clefts of rocks, feeding on beetles, worms, and small birds.

309

10. Quasje.—9. *Viverra Quasje*. 11.

Of a chestnut colour above and yellowish underneath; having a long snout, and the tail being surrounded with different coloured rings. Syst. nat. ed. x. i. 44.

Meles spadicco-nigricans, or Badger, of a deep blackish chestnut colour, having a dusky tail variegated with yellowish rings. Briff. quad. 185.—Ichneumon, called Yzquiepatl. Seba, Mus. i. 68. t. 42. f. 2.—Tamandua mexicana, Yzquiepatl, or Little Fox. Seba, Mus. i. 66. t. 40. f. 2.—Stifling Weefel. Penn. hist. of quad. n. 216.

Inhabits Surinam.—This animal is probably the same with, or a variety of, the preceding: Its general figure, colour, and manners, are the same; it digs in the ground, feeds on worms, insects, and fruits; may be domesticated, and is very fetid.

310

11. Striped Skunk.—10. *Viverra Putorius*. 4.

Of a blackish colour, having five parallel white stripes, from the head along the back and sides to the tail. Schreber, iii. 442. t. cxxii.

Mustela nigra, or Black Weasel, having white stripes on the back. Briff. quad. 181.—Polecat, Skunk, or Fiskatta. Catesby Carol. ii. 62. t. 62.—Conepate. Sm. Buff. vii. 295. pl. ccxliii.—Striated Weefel. Penn. hist. of quad. n. 217. Arct. zool. n. 32.

Inhabits

Inhabits North America.—This animal is about the size of a domestic Cat, but longer bodied, and shorter in the limbs; the head is round, with a lengthened snout, and naked nose, having three rows of whiskers round the mouth, which has but a short opening, or *riñus*; the neck is very short; the head, neck, body, legs, and tail are black, having five white stripes beginning behind the head, one on the middle of the back, and two on each side, which go some way up the tail; this is covered with very long hair, is carried horizontally over the back, like that of a Squirrel, and has a white line running along the under side from the anus to the tip, which is white; the lower parts of the body are variegated with black and white; the fore legs are shorter than the hind legs; the hind feet are long, and, in walking, rest on the heel; both hind and fore feet have five toes, those before having very long and compressed claws, while those on the hind feet are much shorter, and are hollowed underneath: The fore-teeth of the upper jaw are parallel, sunk inwards, and equal to each other; the lower fore-teeth are likewise equal in size, are compressed in their shape, and two of them are placed on the inside of the rest; there are five grinders on each side in both jaws; the tusks in both jaws stand close to the rest of the teeth, but more so in the lower jaw. This animal digs holes, in which it conceals itself, and sleeps during the day, going about only in the night, feeding on worms and insects, and is fond of flesh, poultry, and eggs: When attacked by dogs it bristles up the hair on its back, and throws its body into a round form; and when irritated or frightened, like most of the species of this genus, it emits a shockingly offensive fetid vapour, and stinking urine, which renders dogs or clothes perfectly intolerable; and it is said, that the only way to get this abominable smell from clothes is to bury them, for a day or two, in the earth.

311

12. White Skunk.—12. *Viverra Mephitis*. 13.

The whole back and tail are white, except a longitudinal black line which commences at the root of the tail and reaches to about the middle of the back. Schreber, iii. 444. t. cxxi.

Chinche. Sm. Buff. vii. 295. pl. ccxlii.—Skunk. Penn. hist. of quad. n. 218. Arct. zool. n. 33.

Inhabits America from Chili to Canada.—This species is about sixteen inches long from the nose to the tail; the head is black, with a lengthened snout, and having a longitudinal white line from the nape of the neck to the nose; the upper part of the neck, the whole of the back, except a longitudinal black line along the middle of its posterior half, and the whole tail is white; the tail is covered thickly with very long coarse hair, in some varieties, it is of a blackish colour, and is sometimes tipped with white; the sides, belly, legs, breast, and throat are black; all the toes are furnished with long claws; the hair on the whole body is long, shining, and coarse: This animal is very fond of eggs; it defends itself, like the last described, by means of an intolerable fetor, yet may be tamed.

312

13. Conepatl.—11. *Viverra Conepatl*. 12.

Of a blackish colour, having two white lines running along the back, which are continued to the end of the tail.

Vulpecula puerilis, or Conepatl. Hernand. Mex. 232.

Inhabits New Spain.—This animal is probably a variety of the Skunk.

313

14. Zorilla.—13. *Viverra Zorilla*. 14.

The body is mottled with black and white. Schreber, iii. 445. t. cxxiii.

Mafutiliqui, or Mapurito. Gumilla Orenoque, iii. 240.—Zorille. Sm. Buff. vii. 295. pl. ccxlii.
Penn. hist. of quad. n. 219.

Inhabits South America.—Is about fourteen inches long from the muzzle to the origin of the tail; the snout is short and blunt; the head and body are variegated with black and white in irregular longitudinal and transverse bands; the hair is long and shining; the tail is covered with very long coarse hair, being black at the rump and almost to the middle, the rest white; the legs and belly are black: This animal emits the same abominable odour with the Skunks, so as even to stupify and overcome the Jaguar, or American Panther.

314

15. Mapurito.—14. *Viverra Mapurito*. 15.

Of a black colour, having a white line from the fore head to the middle of the back.

Viverra Putorius. Mutis, act. Holm. 1769, p. 68.

Inhabits New Spain, near the mines of Pamplona.—Is about twenty inches long, from the snout to the tail, which is nine inches long, and whitish at the tip; the head is small, with a long muzzle, smooth tongue, and no external ears; the feet rest on the heel, and have each five toes armed with long claws: This animal lives in deep holes, sleeping all day, and going about during the night; it is swift of foot, and feeds on worms and insects.—Probably a variety of the Skunk.—T.

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16. Grison.—15. *Viverra vittata*. 16.

Has a white fillet from the shoulders across the fore head. Schreber, iii. 447. t. cxxiv.

Grison, or Grey Weasel. Sm. Buff. iv. 266. pl. lxxviii. Penn. hist. of quad. n. 207.—Chinche. Feuillé voy. i. 272.?—Yaguane, and Maikel. Falkner, Patagon. 158. 159.?

Inhabits Surinam, and probably the whole of South America.—This animal is very little known, having only been described by Mr Allamand in his Dutch edition of Buffon; and, what is singular, the remarkable fillet across the fore-head and down the shoulders, though engraved by the Count de Buffon for the improved edition of his Natural History, and given by Dr Gmelin, from Schreber, as the specific distinction of the animal, is not in the smallest degree noticed in Buffon's account of the animal, as quoted from Allamand. The head is very large, with short semicircular ears, and large eyes; there are six cutting teeth in each jaw, four of them hardly rising above the gums; all the feet have five toes, with yellowish claws; the body is about seven inches long; the whole upper parts are covered with deep brown hair, having white points; under the head and neck the hair is bright grey, the white parts of the hair being as long as the brown; the muzzle, the under parts of the body, the legs, and tail are black; the tail is about half the length of the body, and terminates in a point.

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17. Ceylon Fitchet.—16. *Viverra zeylanica*. 17.

Is of a mixed grey and dusky colour on the upper parts of the body, and whitish underneath. Schreber, iii. 451.

Philippine

Philippine Martin. Camel, Phil. Transf. xxv. 2204.?

Inhabits Ceylon, and probably in the Philippine isles.—In size, manners, and appearance, this animal resembles the Pine Martin: The feet have five toes, and the claws are somewhat retractile; the tail is as long as the body, and is somewhat thickened at the origin; the mouth is furnished with five rows of whiskers, and the lower lip is jagged on the edges; the lateral fore-teeth, in the upper jaw, are somewhat longer than the rest, and conically pointed; the rest of the fore-teeth in both jaws are blunt; the tongue is warty.

18. Cape Fitchet.—17. *Viverra capensis*. 18.

Of a black colour, with a grey back, which is edged on each side with a white line.

Erxleb. mam. 493. Schreber, iii. 45. t. cxxv.

Mustela subfusca, or Brownish Weasel, having a longitudinal white line along each side. Brown, Jamaic. 486. n. 1.?—Stinkbinksem. Kolb. Cape of Good Hope, i. 167.—Blaireau puant, or Stinking Badger. La Caille voy. 182.—Ratel Weefel. Penn. hist. of quad. n. 220.

Inhabits the Cape of Good Hope and Guinea.—Is fond of feeding on wild honey, and, like several species of this genus, defends itself against enemies by emitting an intolerable stench: This animal is about two feet long from the muzzle to the root of the tail, which is eight inches in length; it has no external ears; the fur is long and harsh.—Dr Gmelin thinks this quadruped may be allied to the Glutton: Mr Pennant supposes it the same with the Ratel of Sparrman, described afterwards as a distinct species of this genus, under the name of *Viverra Mellivora*.

19. Civet.—18. *Viverra Civetta*. 19.

The tail is spotted on its upper part, and dusky towards the point; the back has a chestnut coloured mane, and is marked with grey and dusky spots. Schreber, iii. 418. t. cxi.

Badger, Meles, variegated with white, black, and reddish streaks and spots. Briff. quad. 186.—Civet, or Hyaena, of the ancients. Belon, obs. 208. f. p. 209.—Civetta. Cluf. cur. post. 57.—Civet-Cat, *Felis zibethi*. Gefn. quad. 836. Aldrov. 342. Olear. 7. t. 6. f. 3.—Civet. Sm. Buff. v. 239. pl. cxxvii. Penn. hist. of quad. n. 223.

Inhabits Ethiopia, Guinea, Congo, and the Cape of Good Hope.—In general appearance and manners, this animal resembles the Cat, having a head somewhat like that of the Indian Ichneumon; the face is spotted under the eyes, and the back has numerous chestnut coloured spots, both round and angular, which change into streaks towards the thighs; the legs are of a very dark blackish brown colour; in each jaw, on each side, are six grinders; the head is long, with a sharp muzzle, which is black at the tip, and short rounded ears; the sides of the face, chin, breast, legs, and feet, are black; the rest of the face, and part of the sides of the neck are white, tinged with yellow, having three black stripes from each ear, ending at the throat and shoulders; the back and sides are cinereous, tinged yellow, and marked with rows of dusky spots; the hair is coarse, and stands up on the back like a mane; the tail is somewhat bushy, sometimes wholly black, and sometimes spotted near the base; the body is about two feet three inches long from nose to tail, which is fourteen inches in length:

length: The perfume, named *Civet*, is produced by this species and the next in a sack, or aperture, which is situated between the anus and the privities, in both sexes: The Civets are kept in cages for this purpose, having the perfume, which is about the consistence of soft pomatum, scraped out with a small spoon two or three times a-week, and yield about a dram each time. In a wild state this animal is ferocious, and preys on birds and small quadrupeds; but may be domesticated, and will feed on Millet pap, raw flesh, and fish.

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20. Zibet.—19. *Viverra Zibetha*. 5.

The tail is marked with coloured rings, and the back is variegated with waved black and white streaks. Schreber, iii. 420. t. cxii.

Felis zibethi, Civet-Cat. Gefn. quad. 837.—Animal zibethi, Civet animal, or *Hyaena* of the ancients, according to Belon. Aldrov. 343. Raj. quad. 178.—Musk animal. Aët. Parif. 1731, p. 443.—Zibet. Sm. Buff. v. 239. pl. cxxvi. Penn. hist. of quad. n. 223. β.—Odoriferous *Hyaena*. P. Castellus, Francof. 1698, p. 8.—Its Anatomy. Bertholin. cent. 4. n. 1. and cent. 5. n. 49.

Inhabits Arabia, Malabar, Siam, and the Philippine islands.—This is a ferocious animal, which is scarcely tameable, yet may, with difficulty, be domesticated, and very readily returns to its original state of ferocity: When irritated, it erects the hair of the back, and defends itself by biting; it lives on small quadrupeds, birds, and fishes, and even on fruits and roots; and is very active both in running and in climbing trees. The body of the Zibet is two and a half feet long, and of a slender make; it is larger than the Civet, having a longer and more slender muzzle, which is somewhat concave on the upper part, while that of the Civet is rather convex; in the upper jaw are six parallel fore-teeth, of which the intermediate ones are somewhat less than the rest; in the lower jaw are likewise six fore-teeth, whereof those in the middle are a little shorter than the others, being alternately placed within the general line of the teeth; in each side of each jaw is one tusk, which stands at some distance from the other teeth; the grinders are sharp, pointed, and acutely knobbed, and of these there are five on each side in the lower, and six in the upper jaw; the ears are proportionally shorter than those of the Civet, and are hid in the hair; the head and lower part of the neck are mixed dirty white, brown, and black; the face being of a pale cinereous grey colour; the sides of the neck are marked with black stripes, which begin near the ears, and end at the breast and shoulders; the hair on the body is rather coarse, close set, and waved, of a cinereous grey and black colour; a black line reaches along the ridge of the back, from the middle of the neck some way up the tail, having two others on each side; the sides are spotted with black and ash colour; the tail is barred with alternate black and white rings, the black bars being broader on the upper than they are on the lower side; the legs are dusky, and black at their lower extremities; the tail is longer than that of the Civet, not bushy, though thickly covered with hair, rounded, and marked with alternate rings: The Zibet, in both sexes, is provided with a follicle, or aperture, exactly in the same situation with that of the Civet, and furnishing the same kind of perfume.

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21. Hermaphrodite Fitchet.—20. *Viverra hermaphrodita* 20.

Has a long tail, black at the tip, and three black stripes along the back. Schreber, iii. 426. n. 6.

Inhabits

Inhabits Barbary.—This animal is of an intermediate size between the Civet and the Genet: The snout, from the tip to above the nose, is black, having a white spot among the whiskers below the eyes; the hair is long, being ash coloured at the roots, and black at the points; the tail is longer than the body; the claws are yellow: Between the penis and anus is a naked part of the skin of the perineum, having a double fold, from which the trivial name is derived.—Pallas.

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22. Spanish Genet.—21. *Viverra Genetta*. 6.

Has a long tail marked with coloured rings; and the body is covered with dusky blackish spots. Schreber, iii. 423. t. cxiii.

Mustela, Weasel, having the tail variegated with alternate black and white rings. Briff. quad. 186. —Genette. Belon. obs. 73. Gefn. quad. 549.—Genith kaze, Chat d'Espagne. Ridinger, illum. thier. t. Q. D. S. xxviii.—Genet. Sm. Buff. v. 254. pl. cxxviii. Penn. hist. of quad. n. 224.

Inhabits about Constantinople, in western Asia, Spain, and the south of France.—This animal resembles the Zibet a good deal, but is considerably smaller; being seventeen inches in length from nose to tail, which is above a foot in length; like the Zibet and Civet, it is provided with an aperture, or sac, which secretes a very weak perfume; the muzzle is sharper, the feet are shorter, and the tail is longer in proportion than in the Zibet: The Genet frequents moist places, and the neighbourhood of brooks; it is of gentle dispositions, and easily domesticated; and, like the Cat, is useful for catching mice; the body is long, with short legs, a slender head, and sharp muzzle; the hair is soft, shining, and of a greyish ash colour, marked with black spots, which are round and detached on the sides, but unite on the back, so as to form the appearance of continued black longitudinal streaks; on the neck and ridge of the back is a black list of long hair, forming a mane; the black spots on the neck form bars or streaks; and the tail has seven or eight black, and as many whitish rings, alternating with each other; on each side there are six grinders in each jaw.

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23. St Germain's Genet.—*Viverra gallica*.

Has a long bushy tail, the first third part of which is whitish grey, mixed with black hairs, and obscurely marked with blackish rings, and the other two thirds are black. Sm. Buff. v. 256. pl. cxxix.

The country of this quadruped is unknown. It was shown at the fair of St Germain's in 1772.—The body and head are twenty inches long, and the tail sixteen; the head is long and slender, with a long muzzle, round black ears, large eyes, and long black whiskers, lying flat on the cheeks; the nose is black, and the nostrils are much arched; a black line, beginning above the nose, extends to between the eyes, having a white line on each side of it; there is a white spot above each eye, and a white line below each; the hair on the body is of a whitish grey, mixed with large black hairs, which form a kind of blackish undulations; the upper part of the back is striped and spotted with black, and the rest of the body is very obscurely spotted with the same; the belly is whitish, the legs and thighs black; the paws are short, having five toes on each, armed with white crooked claws; the hair on the upper part of the neck is somewhat bushy; the tail is thick at the origin: This is a fierce, biting animal, which feeds on flesh; and has the physiognomy and principal characters of the Spanish Genet.

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24. Leverian Genet.—*Viverra annulata*.

The tail is very long and annulated; and the muzzle is marked with a white spot on each side of the nose, and another on the outer side of each eye. Penn. hist. of quad. n. 225. p. pl. xxxvii. fig. 2. Lev. mus.

The place of this animal is unknown, it being described by Mr Pennant from a specimen in the Leverian Museum.—It is about the size of the Spanish Genet, to which it bears a great resemblance; for which reason I have given it the name of Genet, instead of Fossane, with which animal it is in some degree confounded by Mr Pennant. The sides, thighs, rumps, and upper parts of the legs are cinereous, having many long black hairs on the back; the shoulders, sides, and rump are marked with some dispersed black spots; the tip of the nose, the cheeks, and the throat are black; the forehead, upper parts of the cheeks, and ridge of the muzzle, cinereous; the ears are large, upright, rounded, thin, naked, and black; and a black line runs from behind each to the shoulder; the tail is as long as the body, of a cinereous colour, mixed with tawny near the base, and annulated with black.

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25. Fossane.—22. *Viverra Fossa*. 21.

The tail is obscurely annulated; the body is cinereous grey, and spotted with black.

Erxleb. mam. 498. Schreber, iii. 424. t. cxiv.

Fossane. Sm. Buff. vii. 219. pl. ccxxv. Penn. hist. of quad. n. 225.—Berbe. Bofinan, Guin. 239.

Inhabits Madagascar, Guinea, Cochin-China, and the Philippine isles.—This animal comes nearest in size and form to the Genets, but has not the perfume bag, or aperture: The body is slender, and it and the legs are covered with cinereous hair mixed with tawny, and obscurely spotted with black; from the hind part of the head four black lines extend to the back and shoulders; the tail is thick, not near so long as the body, ends abruptly, and is obscurely annulated; the belly is of a dirty white colour; the eyes are large and black: It is very wild and difficultly tameable, of ferocious manners, and mischievous aspect; it feeds on flesh and fruits, but prefers the latter, especially Bananas.

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26. Bizaam.—23. *Viverra tigrina*. 22.

The tail is annulated and tawny at the tip; the body is cinereous, spotted with dusky brown, and having a black list along the back, from the head to the origin of the tail. Schreber, iii. 425. t. cxv.

Chat bizaam. Volmaer, descr. d'une esp. sing. de chat afric. Amst. 1771.—Blotched Weefel. Penn. hist. of quad. n. 222.

Inhabits the country at the Cape of Good Hope.—Is about the size of a domestic Cat; having a round head, a short nose, with white whiskers, and pointed ears; the nose and cheeks are yellowish white, having a round black spot on each side of the former, and a dusky line down the middle of the forehead; the back and outside of the limbs are of a reddish brown colour; the sides and thighs are yellowish white, blotched with deep brown; the tail is as long as the body, of a reddish brown colour, and annulated in a spiral direction with black near the end. This animal is of a tolerably mild disposition,

fiction, has no musk or civet odour, and feeds on flesh, preferring that of birds: Dr Gmelin suspects it to be the same with the Fossane, described above.

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27. Poto.—24. *Viverra caudivolvula*. 23.

Of a mixed yellow and black colour, with a long prehensile tail. Schreber, iii. 453. t. cxxv. B. and i. 145. t. xlii.

Yellow Weefel. Penn. hist. of quad. n. 213. pl. xxxvi. —Potto. Sm. Buff. vii. 293. pl. 4th, ccxl. — Yellow Maucauco. Penn. syn. quad. n. 108.

This animal is said to inhabit the mountains of Jamaica.—It is of mild and playful dispositions; it uses the end of its tail to lay hold of any object, or to suspend its body, in the same way with the Sapaious; and, when asleep, lies with its head under the belly, and rolled up like a ball: The head is broad and flat, with swelling cheeks; it has a short dusky nose; small eyes; short, broad, flapping, and distant ears; and a very long tongue; the body is about nineteen inches long, and the tail seventeen; the fur is short, soft, glossy, and close set; on the head, back, and sides, it is of a mixed black and yellow colour; the cheeks, inside of the legs, and the belly are yellow; a broad dusky stripe runs along the middle of the back from the head to the tail, and another, of the same colour, from the middle of the belly to the tail; the tail is round, and of a mixed tawny, or chestnut brown, and black colour; the legs and thighs are very thick and short, having five toes, all standing forwards, on each foot, armed with large flesh coloured claws, which are somewhat hooked.

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28. Kinkajou.—*Viverra prehensilis*.

Of an olive yellow colour, mixed with grey and brown; having a long prehensile tail. Sm. Buff. vii. 289. pl. 3d, ccxl.

Mexican Weefel. Penn. hist. of quad. n. 214.

Inhabits Mexico and New Spain.—This animal, which the Count de Buffon thinks to be the same with the Poto, is about two feet and a half long, and the tail is one foot three inches: It resembles the Poto very much, but is greatly larger in all its dimensions; its manners are gentle, and lively, having many of the actions of the Monkey, and uses its tail like the Sapaious; it sits up, and uses its fore paws to catch any thing, or to eat with, like a Squirrel; it is fond of fugar, and all sweatmeats, fruits, and vegetables; will likewise attack and kill poultry, sucking their blood from under the wing, but does not eat the flesh: The nose is dusky; the tongue is very long; the eyes are small; the ears are short, rounded, and dusky; the sides and under part of the throat, and insides of the legs, are of a lively yellow colour; the belly of a dirty yellowish white; the under part of the paws is naked, and of a vermilion colour, having five toes armed with white hooked claws, which are guttered beneath.

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29. Ratel.—25. *Viverra melliavora*. 24.

The back is of a dark grey colour, with a black streak along each side; the belly is black; the claws are long, hollow underneath, and fitted for digging. Blumenbach Naturg. 97.

Ratel. Sparrman, act. Stock. 1777, t. iv. f. 3.

Inhabits the Cape of Good Hope.—This animal lives on wild honey and wax, which he digs from the holes of Porcupines, Jerboas, Rabbits, Jackals, and other animals, in which the bees form their hives; these he discovers by observing the flights of the bees, or is led to them by following the *Cuculus indicator*, or Honey-guide Cuckoo, which feeds on bees, and points out their places of abode. The fur of this animal is very thick set, and the skin is extremely lax, though exceedingly thick and strong.

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30. Striped Fitchet.—26. *Viverra fasciata*. 25.

The body is of a grey colour above, having six longitudinal black stripes, and is white on the under parts; the tail is covered with long black and reddish hairs.

Indian Wild-Cat, having black stripes. Sonneret, it. ii. 193. t. 90.

Inhabits India.—The body of this species is about two feet nine inches in length; the feet have each five toes, armed with strong hooked claws; and the eyes are very vivid. According to Sonneret, there are fourteen tusks, and only two fore-teeth, in each jaw.

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31. Malayan Fitchet.—27. *Viverra malaccensis*. 26.

The tail is very long, and marked with black rings; the body is of a grey colour, being spotted with black on the upper parts, having four round spots above the eyes, and three black stripes on the neck and back.

Malayan Civet. Sonneret, it. ii. 144. t. 91.

Inhabits the peninsula of Malacca.—It is of the same size with the Domestic Cat, which it resembles in its manners, being very wild, and living on prey: It is extremely agile, and leaps with great facility from one tree to another; has a strong odour of musk or civet, and retains its urine for a great length of time, on which account it is held in great estimation by the Malays as an aphrodisiac, and strengthener of the stomach: The body is of a pearly white colour, marked with six rows of small black spots, seven in each row; the upper part of the head, the thighs, and legs, are black; the ears are very small and rounded; the eyes are small and of a black colour; the feet are provided with five claws, which are armed with sharp, hooked, and retractile claws.—On account of the retractile nature of the claws, this quadruped might be supposed to belong to the genus of *Felis*, but is excluded from that tribe by the sharpness of the muzzle and length of the body.—T.

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32. Spotted Fitchet.—*Viverra maculata*.

The body, legs, and tail, are black, irregularly blotched with white.

Spotted Martin. Phillips, voy. to New-South-Wales, p. 276. and pl.

Inhabits New-South-Wales.—The body and head are about a foot and a half long; the visage is long and pointed, with large, blunt, erect ears, and numerous long reversed whiskers; the tail is long, taper, and of the same length with the body; the legs are of a moderate length, with very long claws resting on the heels, and having five toes on each foot, the inner toe on the hind feet being separated from the rest, and is very small, and short.

XVII. WEASEL.—16. *MUSTELA*. 15.

Has fix cutting teeth in each jaw; those in the upper jaw are erect, sharp-pointed, and distinct; in the lower jaw they are blunter, huddled together, and two are placed within the line of the rest: The tongue is smooth.

In many circumstances the Otters and Weasels agree together; the body is very long, and of an equal thickness; the legs are short, with smooth shining hair; the claws are not retractile; they dig holes, or burrows, in which they reside; and they chiefly go about, in search of prey, during the night: But the Otters live almost constantly in the water, swimming with great readiness, both on the surface and below it, and subsist chiefly on fish; they do not climb trees, neither do they leap, with a crooked body and stretched out tail, in the manner of the Weasels; the head of the Otter is larger and thicker; the tongue is covered with soft papillae; they have five grinders on each side of each jaw: The Weasels have four grinders above and five below, or five above and six below, on each side. From all these circumstances, and from the peculiar conformation of their feet, perhaps it were proper to separate them into distinct genera; but as they are placed in the same genus by the great Linnaeus, these animals are here only divided into two subordinate sections.

* OTTERS.—*LUTRÆ*.

Having the toes of the hind feet webbed, or connected together by a membrane.

1. Sea Otter. 1. *M. Lutra Lutris*. 1.

The hind feet are webbed and hairy; and the tail is only a quarter of the length of the body.

Lutra marina, or Sea Otter, having hairy feet, and a hairy tail, which is only a quarter of the length of the body. Erxleb. mam. 445. Schreber, iii. 46. t. cxxviii. Penn. hist. of quad. n. 230. pl. on the title of vol. ii. Arct. zool. n. 36.—Kalan. Steller, nov. com. Petrop. ii. 367. t. 26.

Inhabits the coasts of North-west America and Eastern Asia, and the intermediate islands.—The head is flat, having small, roundish, hairy ears; an obtuse muzzle, with a black nose, the upper jaw being longer and broader than the lower, and having numerous stiff whiskers, above and at the sides of the eyes, near the corners of the mouth, on the sides of the under lip, and under the throat; in each jaw are six fore-teeth, those above being equal in size and appearance, while of those in the lower jaw, the two outermost are divided into two lobes, and two alternate teeth of those in the middle are set within the line of the rest; the legs are thick and short, having five toes on each foot, all of them connected by membranes; the tail is flattened and considerably shorter than the body. This animal is, from nose to tail, about three feet long, and the tail is about thirteen inches; the whole body and the limbs are black, except the fore part of the head, which is white or grey; the largest individual weighs from seventy to eighty pounds; the fur is very thick, long, black, and glossy, some-

times varying to silvery, with a soft down beneath. The Sea Otter lives mostly in the sea; is exceedingly harmless, and very affectionate of its young; it runs swiftly on the land, and swims with great facility, frequenting shallows which abound in sea weeds; it feeds on lobsters, fish, *Sepias* or Cuttlefish, and shell-fish; it breeds once a-year; the female brings forth but one at a time, which she suckles near a twelvemonth. The skins are much in request, being sold at a very high price to the Chinese. The trade for this fur at Nootka had lately almost produced a war between Great Britain and Spain.

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2. Brazilian Otter.—1. *β. M. Lutra brasiliensis.*

Of a black colour, with a yellow spot below the chin; the tail is flat, naked, and reaches only to the feet.

Lutra nigra, or Black Otter, with a yellow spot below the chin. Briss. quad. 202.—Brazilian Otter. Raj. quad. 189. Klein quad. 91. Penn. hist. of quad. n. 227.—*Lutra nigricans*, or Blackish Otter, having a naked flattened tail. Barrere Fr. equin. 155.—*Jiya*, or Carigueibeia, of the Brazilians. Maregr. Bras. 234. Jonst. quad. t. 66. Des Marchais, iii. 306.—Guachi. Gumilla, hist. de l'Orenoque, iii. 239.

Inhabits Brasil, Guiana, the Oronoko, and other rivers of South America.—Is about the size of a middling Dog, and weighs from forty to a hundred pounds: The head is round, and resembles that of a Cat, as do the teeth; the eyes are small, round, and black; the muzzle has large whiskers; the ears are round; the feet are like those of a Monkey, having each five toes, the inner one shorter than the rest, armed with sharp claws; the hair is short, soft, and entirely black, except the head, which is dusky, and the throat, which is yellow: It lives on fish and crustaceous animals, robbing the fishermen's nets and wears, with great dexterity; is very fierce, but may be tamed when young; it burrows on the banks of rivers, and lives in society, going together in large troops.

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3. Saricovienne.—*M. Lutra paraguensis.*

About the size of a cat; of a mixed grey and black colour; and having webbed feet.

Saricovienne. Sm. Buff. vii. 321. Penn. hist. of quad. n. 229.

Inhabits along the Rio de la Plata.—This animal lives more in the water than on land; the fur is as fine as velvet; the flesh is reckoned very delicate eating.

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4. Chilese Otter.—*M. Lutra chilensis.*

Has hairy webbed feet; and a long round tail. Molina, hist. nat. Chil. l. iv. 252.

Inhabits the coasts of Chili.—Dr Gmelin only mentions this species in a note of his edition of the *Systema Naturae*, and seems uncertain whether it ought to be considered as an Otter, resembling the Brazilian species, or as a species of Weasel, allied to the Cat tribe, *Mustela felina*: The description of the feet is certainly a sufficient mark of its belonging to the tribe of Otters.

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5. Common Otter.—2. *M. Lutra piscatoria.* 2.

The hind feet are webbed and naked; and the tail is about half the length of the body.

Mustela

Mustela Lutra. Syst. nat. ed. Gmel. i. p. 93. n. 2. Faun. Suec. 12. S. G. Gmel. It. iii. 285. 373. Erxleb. mam. 448. n. 2. Schreber, iii. 457. t. cxxvi. A. B.—*Lutra*, or Otter, with equal toes. Faun. Suec. i. n. 10. Gefn. quad. 775. fig. p. 776. Gefn. aqu. 608. Aldrov. 292. f. p. 295. Jonst. quad. 150. t. 68. Raj. quad. 187. Sm. Buff. iv. 232. pl. lxxiii.—Greater Otter. Penn. hist. of quad. n. 226. BRIT. ZOO. i. n. 19. Brit. zool. illust. tab. c. Arct. zool. n. 34.—Fischotter. Ridinger, wilde thier. t. 28.—Its Anatomy. E. N. C. d. i. a. 3. obs. 195. and d. 2. a. 10. obs. 112. and cent. 10. app. 468.

Inhabits Europe, North America, and Asia, as far south as Persia. This animal frequents fresh water rivers, lakes, and fish ponds, but is never found in the sea; it preys on fish, frogs, and fresh water crustaceous animals, being exceedingly destructive to fish ponds; it lives in holes under ground, which always open under the surface of water; these are constructed with great care to prevent their being overflowed, and are carried upwards so as to have a small air-hole opening in the middle of some bush. The Otter procreates in February, and brings forth three or four young ones in May; the male calls the female by a soft murmuring noise; it is a crafty, and cruelly biting animal, yet may be tamed, and even employed to catch fish for its master. It is in general about two feet long, from the tip of the nose to the base of the tail, which is sixteen inches in length; the male weighs from eighteen to twenty-six pounds; the female from thirteen to twenty-two: The fur is of a deep brown colour, with two small white spots on each side of the nose, and one beneath the chin; the throat and breast are cinereous; the head is broad and flat, with a short broad nose, thick lips, and large whiskers; the ears are short; the neck is short and thick; the legs are short, thick, and loosely connected to the body, having on each foot five toes, which are connected together by webs.

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6. Canadian Otter.—*M. Lutra canadensis.*

Of a black colour and smooth fur; with a long taper tail. Sm. Buff. vi. 324. pl. cxxlvii.

Inhabits Canada, and other parts of North America.—The Count de Buffon, instead of describing this animal, gets into a long disquisition about the *Lutax* of Aristotle, which he finally determines is not the species in question. In a note, he quotes Dennis, who says, that the Otters of North America are commonly much larger and blacker than those of Europe, some being as black as jet; and that their fur is finer. By the plate, the throat and lower parts of the face seem of a whitish or grey colour.

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7. Lesser Otter.—3. *M. Lutra fulva.* 3.

The feet are webbed and very hairy, having toes of an equal length; and the mouth is white. Faun. Suec. 12. Lepechin, It. i. 176. t. 12.

Mustela Lutreola. Syst. nat. ed. Gmel. i. p. 94. n. 3.—*Lutra minor*, or Lesser Otter. Erxleb. mam. 451. n. 3. Schreber, iii. 462. t. cxxvii. Penn. hist. of quad. n. 228. pl. xxxviii. Arct. zool. n. 35.—Dusky Weasel, *Viverra fusca*, having a white mouth. Leche, act. Holm. 1759, P. xxi. 292. t. 11.—*Viverra Lutreola.* Pallas, spicil. zool. xiv. 46. t. 8. f. 1.—Noerza. Agric. de anim. subter. 39.

Inhabits Germany, though rarely, Poland, Finland, Russia, and Siberia.—Lives in marshy places, preying on fish and frogs: Seldom exceeds a foot in length: The body is of a tawny and dusky colour

four mixed together, the fur having two series of hairs, the shorter of which are yellowish, and the long ones black; the top of the head is hoary; the chin white; the feet are broad, webbed, and covered with hair; the tail is dusky, and becomes broader and darker coloured towards the end. This is a most excessively fetid animal, but its fur is very valuable, being esteemed next in beauty to that of the Sable.

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8. Cayenne Otter.—*M. Lutra guianensis*.

The hind feet are webbed; the toes on the fore feet unconnected; and the tail is long, taper, and naked.

Small Guiana Otter. Sm. Buff. iv. 236. pl. lxi.

Inhabits Cayenne, and probably in other parts of South America.—Is only about seven inches long, from the nose to the rump; the tail is near seven inches long, of a brown colour, has no hair, is thick at the origin, and gradually diminishes to the extremity, which is white, it is round above and flat below, and is covered with a rough granulated skin; the upper parts of the head and body are marked with large brownish black spots, exactly corresponding on both sides, and the intervals are of a yellowish grey colour; all the under parts of the body and head, and the fore parts of the fore legs, are white, and there is a white spot over each eye; the ears are large and round; the mouth is garnished with long whiskers.

The Count de Buffon informs us that there are three species of Otters in Cayenne: 1st, Black, which weighs from forty to fifty French pounds. 2d, Yellowish, weighing twenty or twenty-five pounds. 3d, The small greyish kind, above described, which only weighs three or four pounds. The other two are not described; but they are said to appear in numerous troops, to be very fierce and dangerous, and to defend themselves against dogs, biting very cruelly; they litter in holes which they dig on the banks of rivers; are often tamed and brought up in houses.

The same great naturalist, on the authority of two gentlemen who resided in Cayenne, mentions a large animal, under the name of Otter, weighing near a hundred pounds, which lives in the large unfrequented rivers, often showing its head above water; its cry is heard at a great distance; the hair is soft, short, and of a dark brown colour; it lives on fish, and such grain as falls into the water from the bank.—I should rather suspect this last animal to belong to the Seal genus.—T.

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9. Minx.—4. *M. Lutra Minx*. 5.

The feet are webbed; and the whole body is of a uniform full chestnut colour. Schreber, iii. 463. tab. cxxvii. B.

Mustela Vison. Syft. nat. ed. Gmel. i. p. 94. n. 5.—*Mustela castanea*, Weasel, having the whole body covered with dark chestnut coloured hair. Briss. quad. 178. n. 6.—Minx. Lawson Carolin. 121. Kalm. it. iii. 22.

Inhabits North America.—This animal lives on the banks of the rivers, preying on fishes, birds, and mice, and sometimes frequents the farm-houses. Mr Pennant considers this as being the same animal with the Lesser Otter already described, though the colour of the two are certainly different.

Dr Gmelin quotes an animal from the Count de Buffon, as a synonyme to this, under the name of *Vison*, which has a much greater resemblance to a Weasel than to an Otter, and cannot therefore be the

the same with the animal in question: For this reason, and on the authority of Mr Pennant, the Vision is removed to the division of Weasels.

** WEASELS.—*MUSTELÆ*.

Having the toes unconnected.

341

1. Tayra.—1. *Mustela barbara*. 4.

Of a black colour; having a three lobed spot on the under part of the neck.

Mustela maxima, or Largest Weasel, of a black colour, having a strong scent of musk, called Tayra. Barrere, Fr. equin. 155.—Guiana Weasel. Penn. hist. of quad. n. 209.

Inhabits Guiana and Brasil.—Is about the size of the Martin, having coarse black hair; the ears are rounded and downy; the space between the eyes is ash coloured; the white spot is placed under the middle of the neck, not under the throat: The female has four teats, which are situated on the middle of the belly, near the navel. It is said that this animal, by rubbing itself against trees, leaves a kind of unctuous matter which has a strong odour of musk.

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2. Galera.—2. *Mustela Galera*. 2.

Of a uniform dusky brown colour. Erxleben, mam. 453.

Galera subfusca, or Brownish Galera, called Guinea Fox; having a long tail, black eyes, and flat, almost naked ears. Brown, Jamaic. 485. t. 29. f. 1.—Guinea Weasel. Penn. hist. of quad. n. 208.—Galera, or Tayra. Sm. Buff. viii. 265.

Inhabits Guinea.—This species is about the size of a small Rabbit, and is shaped like a Rat; the upper jaw is much longer than the lower; the eyes are placed midway between the ears and tip of the nose; the ears resemble those of mankind; the tongue is rough; the tail hangs downwards, and tapers to the point; the feet are strong and formed for digging; the fur is rough. This animal is very common about the Negro villages, burrowing like a Rabbit; is very fierce and destructive to poultry.

Dr Gmelin confounds this and the following animal together, but, on the authority of the Count de Buffon and Mr Pennant, I have ventured to separate them.—T.

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3 Vanfire.—*Mustela afra*.

The colour of the upper parts of the body is brown; that of the under parts pale yellow; the tip of the tail is blackish.

Viverra javanica, or Java Weasel. Briff. quad. 245. Seba, Mus. 1. 77. t. 48. f. 4.—Vanfire. Sm. Buff. vii. 221. pl. ccxxvi.—Madagascar Weasel. Penn. hist. of quad. n. 203.

Inhabits Madagascar and the interior parts of Africa.—The length, from the tip of the nose to the rump, is fourteen inches, of the tail near ten; the hair is brown at the roots, and is barred above with

with black and rusty brown ; the ears are short ; in the upper jaws are twelve grinders, six on each side, and ten in the lower.

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4. Pekan.—3. *Mustela canadensis*. 13.

The fur is of a blackish tawny, or bay, colour ; having a white spot on the breast. Erxleb. mam. 455. Schreber, iii. 472. t. cxxix.

Pekan. Sm. Buff. vii. 307. pl. ccxlv. Penn. hist. of quad. n. 204. Arct. zool. n. 28.

Inhabits North America.—This animal, in its form, is like the Pine Martin ; the body and head are near two feet long, and the tail above ten inches ; the hair on the head, back, and belly, is very soft and glossy, cinereous at the roots, and of a bright bay at the ends ; the sides are tinged with grey ; the legs and tail are black ; there is a white spot between the fore legs ; the toes are thickly covered with hair, and are armed with sharp claws ; the ears are a little pointed ; the mouth is garnished with very long and strong whiskers.

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5. Vison.—*Mustela Vison*.

Of a bright and glossy tawny brown colour ; the tail dusky. Sm. Buff. vii. 307. pl. ccxlv. Penn. hist. of quad. n. 205. Arct. zool. n. 29.

Inhabits North America.—Resembles the Martin : The body and head are above seventeen inches long, and the tail nine ; the legs are very short ; the ears are rounded ; beneath the hair is a thick soft down, of a cinereous colour tipped with rusty brown.

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6. Common Martin.—4. *Mustela Foina*. 4.

Of a blackish chefnut colour ; the throat and breast white. Erxleb. mam. 458. Schreber, iii. 472. t. cxxix.

Weasel, *Mustela*, having the hairs whitish at the roots, and chefnut coloured at the extremities ; the throat white. Brissl. quad. 178.—*Martes domestica*, or Common Martin. Gefsn. quad. 765. Aldrov. 332. Jonst. quad. 156.—*Martes*, *Foina*, *Martlet*, or *Martin*. Raj. quad. 200.—*Martin*. Penn. hist. of quad. n. 199. Sm. Buff. iv. 239. pl. lxx.—*Marder*. Ridinger, klein. thier. t. 85.

Inhabits Britain, Germany, France, and most parts of the south of Europe ; and is found even in the warmer parts of Russia. — Goes about during the night in quest of prey, living on small quadrupeds, frogs, and birds, being particularly greedy of poultry and eggs, even devours ripe fruits, and is a great enemy to cats ; may be tamed, if caught young. The female, when young, brings three or four, and, when full grown, as far as seven at a birth. The body and head are a foot and a half long ; the tail ten inches ; the body, sides, and legs are covered with hair, which is ash coloured at the bottom, bright chefnut in the middle, and black at the tips ; the throat and breast are white ; the belly deep brown ; the tail is dusky and full of hair ; the feet are broad, covered at the bottom with thick down, and armed with white claws ; the head is brown with a reddish tinge, having broad rounded ears, and lively eyes. It is a most elegant, lively animal, very good natured, sportive, and capable of being

being tamed; lives in woods, breeding in hollows of trees, and is often, in winter, found in magpies nests. The skin and excrements have a musky smell.

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7. Pine Martin.—*Mustela Martes*. 5.

The body is of a dark or blackish chefnut colour, with a yellow breast and throat.

Erxleb. mam. 455. Schreber, iii. 475. t. cxxx.

Mustela, or Weasel, having hair of a cinereous grey or whitish colour at the roots, and chefnut at the extremities, with a yellow throat. Briff. quad. 179.—*Martes sylvestris*. Gefn. quad. 766.—Pine Martin, *Martes abietum*. Raj. quad. 200. Penn. hist. of quad. n. 200. Arct. zool. n. 27.—Yellow-breasted Martin. BRIT. ZOOL. i. 81. Sm. Buff. iv. 245. pl. lxxiii.—*Martes*. Aldrov. dig. 331.—Marder. Ridinger, wilde thiere: t. 30.

Inhabits the north of Europe, Asia, and America; and is more rarely found in Britain, France, Germany, and Hungary; and as far as Tonquin and China.—Lives in large woods or forests, keeping in the day time in the hollows of trees, occupying squirrels nests, especially for their young, and only goes about by night: It preys on squirrels, mice, rats, and small birds; eats likewise berries, ripe fruit, and honey; and, in winter, goes in quest of pigeons and poultry. It procreates in February, and is said, after nine months, to bring forth seven or eight young ones: The head is shorter, and the legs are somewhat longer, than in the Common Martin. The fur of this species is far superior in fineness to that of the common kind, and is a prodigious article in commerce: Those about Mount Caucasus, with an orange throat, are more esteemed by furriers than the rest.

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8. Guiana Martin.—*Mustela guianensis*.

Of a dark brown colour, with a white fore-head, and a long narrow stripe along the side of the neck. Sm. Buff. iv. 243. pl. lxxi.

Inhabits Guiana.—The body and head are near two feet long, and the tail is only about five inches: The fur is sprinkled with black and white; the muzzle is much lengthened, and black, which colour extends above the eyes, passes under the ears along the neck, and loses itself in the brown hair of the shoulders; the top of the head is whitish grey; the neck is brown, interspersed with ash coloured hairs; the hairs of the body are grey and ash coloured at the roots, brown in the middle, and black and white at their extremities; the under part of the jaw is blackish brown, which colour extends under the neck, and vanishes towards the belly, which is bright brown or chefnut; the legs and feet are covered with shining reddish black hair; the tail is more bushy at the root, and is of a bright brown mixed with black.

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9. Cayenne Martin.—*Mustela laniger*.

Is covered with woolly hair; and the tail is long and taper.

Small Guiana Martin. Sm. Buff. iv. 244. pl. lxxii.—Woolly Weasel. Penn. hist. of quad. n. 210.

Inhabits Cayenne.—The body and head are near sixteen inches long, and the tail near nine; the nose is very long and slender, the upper jaw being longer than the under; the ears are short and round-

ed; the legs are short.—The Count de Buffon, though he gives this animal from the life, does not inform us of its colour or manners: The belly, lower part of the neck, and a spot behind the eye, seem, from the figure, to be whitish or grey. Though Mr Pennant makes two distinct species of this and the American Fitchet, Hist. of quad. n. 194. I am inclined to think that both descriptions refer to the same animal.—T.

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10. Sable.—6. *Mustela Zibellina*. 9.

Of a dark tawny brown or blackish colour, with a very white fore-head, and cinereous throat. Schreber, iii. 478. t. cxxxvi. Pallas, spicil. zool. xiv. 54. t. 3. f. 2.

Mustela, or Weasel, of a dark tawny colour, with a grey throat. Briss. quad. 180.—Sobela, Zobela, or Zibellina, Gefn. quad. 768. Aldrov. dig. 335. Jonst. quad. 156. J. G. Gmelin, nov. com. Petrop. v. 338. t. 6.—Sable. Sm. Buff. vii. 309. Penn. hist. of quad. n. 201. Arct. zool. n. 30.

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β. White Sable.—*M. Zibellina alba*.

Of a snowy white colour. Strahlenberg, hist. russ. 442. Penn. hist. of quad. p. 322.

Inhabits the northern parts of Asia and America, Siberia, Kamtschatka, and the Kurile islands, and formerly in Lapland; being found in Asia as low as 58°, and in America even to 40° of latitude.—This species is much infested by wild cats: It preys on smaller animals of the Weasel tribe, squirrels, and hares; during winter on birds, especially partridges; and in winter eats huckleberries, craneberries, and the berries of the service tree, or mountain-ash; it sleeps in the day time, going about only in the night; procreates in January, and brings forth, about the end of March, from three to five young ones. This animal has a great resemblance to the Martin; from which it differs in having a longer head, longer ears, surrounded by a yellow margin, longer and more elegant fur, the feet more thickly clothed with hair, and the tail is shorter than the hind legs when extended, while that of the Martin is much longer. The colour of the hair is cinereous at the bottom, and black at the tips; the chin is cinereous, sometimes white, yellowish, or spotted; the mouth is garnished with long whiskers; the feet are large, with white claws. In spring, after shedding the coat, the fur is sometimes of a tawny cast, and sometimes varies to snowy whiteness. The blackest are reputed the best, and sometimes sell, even in Siberia, from one to ten pounds Sterling each. The white variety is very rare; and some, as rarely, are found which have a collar of white or yellow spots round the neck. The Sable is probably the *Σαβγιον*, or *Satherius*, of Aristotle, Hist. an. lib. viii. c. 5.; which he classes with the animals that are conversant among waters; such as the Beaver and Otter.

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11. American Sable.—*M. Zibellina americana*.

Of a light tawny colour, with whitish head and ears. Penn. hist. of quad. n. 201. β.

Inhabits North America, especially in Canada.—Is twenty inches in length, from nose to rump; the trunk of the tail is five inches long, but to the end of the hairs eight; the ears are more pointed than the former; the feet are very large, of a brown colour, and hairy both above and below, having five toes with white claws on each.

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12. Black Sable.—*M. Zibellina nigra.*

The back, belly, legs, and tail, are black; the sides are brown; the tail is very bushy.

Fisher Weasel. Penn. hist. of quad. n. 202. Arct. zool. n. 31. Lev. mus.

Inhabits North America, particularly New York and Pennsylvania.—Is two feet four inches long from nose to rump, and the tail seventeen inches; the hairs on the back, legs, belly, and tail, are brownish at the base, and black at the ends; the sides are brown; the face, and sides of the neck, are pale brown, or cinereous; the nose is black, with strong, stiff whiskers; the ears are broad, rounded, dusky on the outsides, and edged with white; the feet are very broad, and are covered with hair both above and below, having five toes before, and four, sometimes five, behind, armed with strong, sharp, crooked claws; the tail is full and bushy, but smaller at the extremity. Though called the Fisher Weasel, it is not amphibious, but preys on all lesser quadrupeds: It has six small fore-teeth in each jaw; six large tusks in all; four grinders on each side of the upper jaw, three of which are sharp pointed and the fourth flat; six grinders on each side of the lower jaw, the farthest back being flat, the next three pointed, and the other two having two points. This species sometimes varies in colour.

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13. Polecat.—7. *Mustela Putorius*. 7.

Of a blackish yellow or chocolate colour, with white muzzle and ears. Faun. Succ. 16. Schreber, iii. 485. t. cxxxi.

Mustela, or Weasel, having its hair of a whitish grey colour at the roots and black at the tips, and with a white muzzle. Briss. quad. 186.—Yellowish-black Weasel, *Mustela flavescens-nigricans*, with a white muzzle, and yellowish collar. Syft. nat. ed. vi. 5. n. 3.—Putorius. Gefn. quad. 767. Aldrov. dig. 329. fig. p. 330. Jonst. quad. 154. t. 64. Raj. quad. 199.—Fitchet, or Polecat. Penn. hist. of quad. n. 195.—Putois, or Polecat. Sm. Buff. iv. 248. pl. lxxiv. BRIT. ZOOL. i. 77.—Iltnis. Ridinger, wild. thier. t. 26.

Inhabits most parts of Europe, and in the temperate climates of Asiatic Russia.—Dwells in rocky, stoney, and gravelly places; about stables, barns, and dwelling-houses; in hollow trees, and in shallow burrows, of several yards long, terminating under the roots of large trees; sleeps mostly during the day, and goes about in the night in search of rabbits, rats, mice, moles, poultry, and other birds, in winter it feeds likewise on fish and frogs, and is very destructive to bee-hives. The head of the Polecat is thicker, the muzzle sharper, and the tail shorter, than in the Martin, from which animal it chiefly, however, differs in colour. In the deserts of Asiatic Russia, Polecats are sometimes found, especially in winter, of a white colour; they are likewise found beyond lake Baikal with white or yellowish rumps, bounded with black. It is exceedingly fetid, like several other species of this genus, especially the Martin and Sable, giving out from the anus a most excessively fetid vapour, when frightened: The male is mostly of a yellowish tinge, having a whitish muzzle, while the muzzle of the female is commonly of a yellowish dirty white.

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14. Ferret.—8. *Mustela Furo*. 8.

Has remarkably red and fiery eyes.

Z 2

Mustela,

Mustela, or Weasel, of a pale yellow colour. Erxleb. mam. 465. Schreber, iii. 488. t. cxxxiii.—*Mustela viverra*, Furo, or Ferret, the male having yellowish fur, intermixed with long hairs which are tipped with chestnut colour; the fur of the female being of a whitish pale yellow colour. Briss. quad. 177.—*Mustela sylvestris*, Viverra, Furo, or Ictis. Aldrov. dig. 327. Jonst. quad. 154. Raj. quad. 198. Gefn. quad. 762.—Ferret. Penn. hist. of quad. n. 198. BRIT. ZOOL. i. 78. and ii. 498.—Furet, or Furet putois. Sm. Buff. iv. 252. pl. lxxv. and lxxvi.

Inhabits Africa.—From thence this animal was brought into Spain, in order to free that country from rabbits, and from Spain the rest of Europe has been supplied: It is domesticated, and is employed for hunting rabbits. It procreates twice a year, bringing forth from five to eight young at a birth, very rarely nine. In this country it is apt to degenerate, for which reason warblers cross the breed, procuring an intercourse between a female Ferret and a male Polecat, by leaving the former, when in season, near the haunts of the latter: The produce is of a much darker colour than the Ferret, having a great resemblance to the Polecat. The Ferret is much smaller than the Polecat, the head and body being about fourteen inches long, and the tail five; the head is narrower, the muzzle sharper, and the whole body more lengthened and thinner; the colour likewise differs considerably; the Ferret being usually of a very pale yellow, though that circumstance is variable, as in all domesticated animals. It is very fetid.

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15. Sarmatian Weasel.—9. *Mustela sarmatica*. 15.

The upper part of the body is of a brownish black colour, spotted and striped irregularly with obscure yellow. Pallas, It. i. 453. and Spicel. zool. xiv. 79. t. iv. f. 1. Erxleb. mam. 460. Schreber, iii. 490. t. cxxxii.

Mustela Peregrina, or Weasel, called Peregrina, by the Russians; the head, and under parts of the body, being of a full black, the upper part of the body variegated with dark brown and yellow; the mouth and ears, and a band on the fore-head, white. Guldenstaedt, nov. com. Petrop. xiv. 441. 445. t. 10.—*Mustela praeincta*, Girdled Weasel, or Perewiaska. Rzaczynski, hist. nat. Polon. 328. and 222.—Vormela, or Wormlein. Gefn. quad. 768.—Sarmatian Weasel. Penn. hist. of quad. n. 196.

Inhabits Poland, especially Volhynia, in the deserts of Russia between the Volga and Tanais, the mountains of Caucasus, Georgia, and Bucharra.—This is a most voracious animal, which feeds on Marmots, rats, mice, jerboas, birds, and other small animals. It procreates in spring, and, after eight weeks, the female, which has eight teats, brings forth from four to eight young ones: It resembles the Polecat, but has a narrower head, a more lengthened body, a longer tail, and shorter hair, except on the feet and tail. It lives in holes, sometimes of its own burrowing, but mostly in those which have been made by other animals, and is exceedingly fetid. The head and body are about fourteen inches, and the tail six inches in length.

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16. Siberian Weasel.—10. *Mustela sibirica*. 16.

Of a deep yellow colour, having the soles of the feet exceedingly hairy.

Siberian Weasel, called Kolonok by the Russians. Penn. hist. of quad. n. 197. Pallas, It. ii. 701. and Spicel. zool. xiv. 89. t. iv. f. 2. Erxleb. mam. 471.

Inhabits

Inhabits Siberia.—This animal is nearly of the same size with the last, being about twelve inches long from nose to rump, and the tail six: In manners it resembles the Sable, and in general appearance comes nearest to the Ermine, but has longer legs and a longer tail: The tail is very full of hair, and of a deeper colour than the rest of the body; the fur is in general long and loose; the face is black, the nostrils are surrounded with whitish, and spotted about the eyes; the throat is sometimes spotted with white. The chief residence of this animal is from the Altaic mountains to the river Amur and lake Baikal: It lives mostly in the forests, but is so greedy that it will even venture into the huts of the peasants, to devour their meat and butter.

17. Ermine.—11. *Mustela Erminea*. 10.

The tail is tipped with black. Faun. Suec. 17. Houttuyn, nat. iii. 206. t. 14. f. 5.

Mustela, or Weasel, which is white in winter, being in summer of a reddish colour on the upper parts of the body, the belly white, and the point of the tail black. Briss. quad. 176.

Of this species the two following varieties are distinguished by Dr Gmelin and other authors, though the difference seems chiefly to depend on climate and the season of the year; the Stoat of a pale tawny brown, or reddish yellow, colour in summer, becoming the white Ermine of winter in cold countries.

α. Stoat.—*M. Erminea aestiva*.

Has a reddish tinge, and the tail is tipped with black. Schreber, iii. 496. t. cxxxvii. A.

Roselet. Sm. Buff. iv. 262. pl. lxxix.—Stoat. Penn. hist. of quad. n. 193. Arct. zool. n. 26. BRIT. ZOO. i. 84.—Wiesel. Ridinger, jagdb. thier. t. 19.

β. White Ermine.—*M. Erminea hyberna*.

Of a white colour, with a blackish tip to the tail. Aldrov. dig. 310. Schreber, iii. 496. t. cxxxvii. B.

Mustela candida, White Weasel, Animal Ermineum, or Ermine. Raj. quad. 198.—Hermine, or Ermine. Sm. Buff. iv. 262. pl. lxxvii. f. 2. Penn. hist. of quad. n. 193. β. BRIT. ZOO. i. 84.—Hermelin. S. G. Gmelin, It. ii. 192. t. 23.

Inhabits the north of Europe, Asia, and America, and as far as the northern parts of Persia and China.—Lives in heaps of stones, on the banks of rivers, in the hollows of trees, and particularly in forests, especially those of beach, preying on squirrels and lemmings. In manners and food it resembles the Common Weasel, but does not frequent houses; haunting chiefly in woods and hedges, especially such as border on brooks or rivulets. In general appearance it comes very near to the Martin, but is shorter in the body, being scarcely ten inches long from nose to rump, and the tail about five and a half; the hair is likewise shorter and less shining than in that animal. In the northern regions, the fur of the Ermine becomes entirely white during winter, except the outer half of the tail, which remains black. The skin is reckoned valuable, and sells in Siberia from two to three pounds Sterling a hundred; but in ancient times it was in much greater request than now. In summer, the upper part of the body is of a pale tawny brown colour; the edges of the ears, and ends of the toes, are yellowish.

yellowish white; the throat, breast, and belly are white: In winter, in the more temperate regions, it is sometimes mottled with brown and white; but in more severe winters becomes entirely white; the farther north, and the more rigorous the climate, the white is the purer; those of Britain generally retain a yellowish tinge. In Persia and other more southern parts, it is brown the whole year.

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18. Common Weasel.—12. *Mustela vulgaris*. 11.

The upper parts of the body are of a pale reddish brown, the lower parts white; the tail of the same colour with the body. Erxleb. mam. 471. Schreber, iii. 498. t. cxxxviii.

Mustela, or Weasel, reddish above and white below. Briff. quad. 175.—Common Weasel, *Mustela vulgaris*. Aldrov. dig. 307. Jonst. quad. 152. t. 64. Gefn. quad. 752.—Weasel, Weefel, Fitchet, Fomart, or Foulmart. Rāj. quad. 195.—Whitret, or Whitred. Sibald, Scot. iii. 11.—Common Weefel. Sm. Buff. iv. 257. pl. lxxvii. f. 1. Penn. hist. of quad. n. 192. Arct. zool. n. 25. BRIT. ZOO. i. 82. D^o. illust. tab. ci.—Wiesel. Ridinger, wilde thier. t. 30.

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β. Snow Weasel.—*M. vulgaris nivalis*.

Having a white fur, and scarcely any black hairs at the point of the tail. Syst. nat. ed. xii. 69. n. 11.

Mustela, or Weasel, having the tail of the same colour with the body, and appearing as if cut off in the middle. Hellenius, act. Stockh. 1785, trim. 3. n. 9. t. 1.—Sno-mus. Faun. Suec. 18.

Inhabits the temperate and northern parts of Europe, Asia, and America, and as far to the southwards as the northern provinces of Persia, and is said to be found even in Barbary.—In the more northern parts of Russia and Sweden, particularly in Westbothnia, it becomes white in winter; even in this state it is easily distinguishable from the Ermine, being a great deal smaller; the body and head not exceeding seven inches' leng, and the tail two inches and a half. It is very destructive to chickens, birds, and young rabbits; eats fish, flesh, mice and rats, eggs, and mushrooms, but no other vegetable; it is very greedy, killing and carrying off great quantities of small animals at a time, above eighty field mice having been found in one Weasel's hole; it is very fetid, dirty in its habits, and drinks much; preys mostly by night, and is a great enemy to the tribe of mice, entering their burrows, and eating their whole bodies, only leaving their teeth undevoured: It is killed by cats with great difficulty; is very watchful, looking round with great caution, when running about; is said to be seized with epileptic fits, or convulsions, when much terrified; when tamed is very playful and cunning: In spring the female brings forth six, eight, or more young ones at a birth. The whole upper parts of the head and body are of a pale tawny, or reddish brown, colour; the under parts are entirely white, with a brown spot, on each side, beneath the corners of the mouth; and the ears are small and rounded: It is a very active animal, which in confinement is in perpetual agitation, always endeavouring to conceal itself; its motions consist mostly of unequal and precipitant leaps; it runs up the sides of walls, or up trees, with great facility, making at first a sudden bound several feet high, and seizes its prey in the same manner; it destroys pigeons, sparrows, serpents, water-rats, moles, field-mice, quails, partridges, and every other small animal it is able to master; is very fetid when irritated or frightened, and seems not incommoded even by the most intolerable smells, as there are instances of the female making her nest and littering her young in excessively putrid carcases. It may be

be tamed, and even trained to follow a person any where, by gentle treatment combined with proper chastisement.

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19. Yellow Weasel.—*Mustela melina*.

The back and belly are of a pale cinereous yellow; the face, crown, legs, and tail, black.

White-cheeked Weasel. Penn. hist. of quad. n. 206.

The native country of this animal is unknown; it having been described by Mr Pennant from a living specimen in possession of an animal-merchant in the year 1774.—It is eighteen inches long from nose to rump; the tail is of the same length, and covered with long hair; the head is flat, with rounded ears, broad blunt nose, dusky coloured eyes, white cheeks and chin, and a rich yellow coloured throat.

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20. Chilese Weasel.—13. *Mustela Quiqui*. 17.

The body is of a dark brown colour; having a wedge shaped muzzle.

Quiqui. Molina, hist. nat. Chil. lib. iv. 258.

Inhabits Chili.—Lives in burrows under ground; is of a ferocious disposition, and preys on murine animals.

Besides these species, Dr Gmelin mentions two, that he is uncertain how to arrange, as their characters are not sufficiently marked by the authors who treat of them: 1st, The Javan Weasel, or *Mustela Javanica*, of Seba, i. 77. t. 48. f. 4.; and, 2d, The Sardinian Weasel, or Boccamele of the Sardinians, Cetti, hist. nat. Sardin. i. t. 5. having the tail tipped with black, and a lengthened body; it follows mankind, lives on flesh and vegetables, is fond of honey, and frequents the vineyards.

XVIII. B E A R.—17. *U R S U S*. 16.

Has six cutting teeth in each jaw, which are hollowed on the inside; of these in the lower jaw, the two outermost on each side are longer than the rest, and are lobbed: Each jaw has one tusk on each side, with very small secondary teeth at their posterior bases, placed more inwards than the principles: In the upper jaw are five, and in the lower jaw six grinders on each side, which are placed near the tusks. The tongue is smooth: The eyes are provided with a membrana nictitans: The snout is lengthened*.

The

* Penis scatenus osse curvato.

The animals of this genus have five toes on each foot, which are all contiguous to each other; the sole of the foot is long, and extends to the heel, giving a very firm tread; they are all capable of climbing; and some use their fore feet in the manner of hands.

1. Common Bear.—1. *Ursus Arctos*. 1.

Of a blackish brown colour, with a very short tail. Erxleb. mam. 156.

Urfus niger, or Black Bear, with the tail of the same colour. Briff. quad. 184. Gefn. quad. 14. Aldrov. dig. 117. Jonst. quad. 123. t. 55. Raj. quad. 171. Klein, quad. 82.—Black Bear. Penn. hist. of quad. n. 174.—Bear. Sm. Buff. v. 1. pl. c.—Baer. Ridinger, wilde thiere. t. 32.

Of this animal the following varieties are mentioned.

364 α. Black Bear.—*U. Arctos niger.*

Of a small size, and entirely black. Schreber, iii. 502. t. cxl. Arct. zool. n. 19.

365 β. Brown Bear.—*U. Arctos fuscus*.

Of a brown or rusty colour. Schreber, iii. 502. t. cxxxix.

Brown Bear of the Alps. Sm. Buff. v. 2. Arct. zool. n. 20.

366 γ. Grey Bear.—*U. Arctos griseus*.

Of a black colour, interspersed with white hairs. Arct. zool. n. 20. 2.

367 ♂. Variegated Bear.—*U. Arctos variegatus*.

The body is variegated with different colours.

368. White Bear.—*U. Arctos albus.*

The body is of a white colour.

White Land-Bear. Sm. Buff. v. i. pl. ci. Arct. zoel. n. 20. y

Inhabits the north of Europe and Asia, and in Arabia, the Alps, Japan, and Ceylon. The Grey and Variegated varieties are found in Iceland; the Black and Brown kinds inhabit the marshy woods in the north of Europe and Asia; and the Brown Bear is likewise found in the Alps, the Pyrenees, Caucasus, the Carpathian mountains, in Poland, Greece, Palestine, Egypt, Barbary, Ceylon, India, Japan, China, and Persia.—The Black Bear lives entirely on roots, berries, and other vegetable substances; besides these, the Brown devours various kinds of insects, especially ants and bees, with their combs, and feeds on the dead carcases of sheep, goats, cattle, deer, and horses, which they even attack and destroy. In general they blow up the carcases of such animals as they kill, and hide the remainder of what they cannot devour in the marshes; they commonly wash their food; and, when confined

confined to their dens, during the winter, they suck their paws. The Brown Bear procreates about the end of June, and the Black about the end of October, and both kinds, going about a hundred and twelve days, bring forth one or more at a birth. In the colder regions the Bears hibernate, or pass the winter in a state of torpidity, retiring into dens in the clefts of rocks, or in the hollows of old trees, where they remain wrapt up in warm soft beds of moss, usually from the middle of November to the breaking up of the winter frost, and abstain from food during all that period: They go into their winter retreats extremely fat, but, as they eat nothing during that season, they are excessively lean in spring, and are commonly forced to come out by extreme hunger. They generally walk about with great gravity and composure, except when attacked or irritated; on which occasion they become very active, and, rising upright on their hind legs, strike with both fore feet; they seldom attack mankind, except when irritated, and on these occasions the female obliges her young ones to climb up trees, if at hand, before she ventures to fight; they always descend trees with their hinder parts foremost, of which they are very careful. Bears are not infested with fleas; and it is said that they are frightened by music: They stand upright, naturally, on their hind legs, and swim with great facility; in consequence of the membrana nictitans, their aspect is cruel, furlly, and unpleasant: The thumb, or inner toe, on each foot is smaller than the rest; the female has four dugs; the skull is less than that of the Lion, though the brain is larger; their tendons are in great request among the Laplanders for making thread; their flesh is reckoned delicious food, especially when fat; their gall is excessively bitter, and is esteemed a valuable medicine in epileptic cases; and their grease or fat is much valued as a cosmetic, especially for causing the hair to grow.

2. Polar Bear.—2. *Ursus maritimus*. 5.

Of a white colour, with a very short tail; and having a longish neck and head.

Erxleb. mam. 160. Schreber, iii. 513. t. cxli.

Ursus marinus, or Sea Bear. Pallas, It. iii. 691. and Spic. zool. xiv. 1.--24. t. 1.—*Ursus albus*, or White Bear, having the tail of the same colour. Briff. quad. 188.—*Ursus maritimus albus*, *Ursus major arcticus*, Larger Arctic Bear, or White Sea Bear. Martin, Spit. 73. t. O. f. C.—*Ursus albus*, or White Bear. Jonst. quad. 126. Mus. Worm. 319. Klein, quad. 82. Sm. Buff. viii. 216. pl. cclxxxix.—Polar Bear. Penn. hist. of quad. n. 175. pl. xxxiii. fig. 1. Arct. zool. n. 18.—Weisse Baer. Ridinger, Baeren. t. 3. Ed. Col. Mus. Weir's Mus.

Inhabits within the Arctic circle, being found chiefly in Greenland, Spitzbergen, about Hudson's Bay, Nova Zembla, and from the river Ob, in Siberia, to the Jenisei and Lena.—Polar Bears are found in great abundance on the ice-islands of these northern seas, preying on fishes, seals, and cetaceous animals; they seldom penetrate into the inhabited countries farther south, yet are sometimes found in Newfoundland, Iceland, and the more interior parts of northern Russia and Siberia, into which they penetrate either from extreme necessity, or from having lost their way during fogs, and on these occasions they are sometimes necessitated to feed on vegetables. The female goes six or seven months with young, and usually brings forth two cubs in the month of March. In manners and appearance this species resembles the former; which has, however, a larger head and a thicker muzzle. The skin of some individuals of this species is thirteen feet long; the head and neck are long, with short round ears, and the nose is tipped with black; the feet and legs are of vast size; the teeth are very large; the fur is long, soft, shaggy, and generally of a yellowish white colour: This species seems ex-

remely fond of human flesh, is very bold and fearless, attacking bands of armed men, and boarding ships; and even digs up human carcases. It has sometimes terrible combats with the Morse or Walrus, which is its greatest enemy. It is very impatient of heat, and when brought into the more temperate regions, must be frequently refreshed by means of cold water thrown over the body. The flesh is very white, and is reckoned to resemble mutton.

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3. American Bear.—3. *Ursus americanus*. 6.

Of a black colour, the throat and cheeks being of a rusty brown colour. Pallas, Spicel. zool. xiv. 6. n. 26. Penn. hist. of quad. n. 174. β.

Inhabits the whole of America, except Chili and Patagonia, and is found in Kamtschatka.—This species rejects animal food, though pressed by hunger, confining itself entirely to vegetables, and is remarkably greedy of Maize and Potatoes; Dr Gmelin says that it feeds on fish. The head is more lengthened than in the European Bear, the ears are longer, the hair is more smooth and glossy, blacker and softer; the whole body is much smaller; the nose is longer and more pointed, and of a yellowish or rusty brown colour. It is very cowardly, and never attacks mankind unless when provoked, or in defence of its young; it sometimes bites the natives of Kamtschatka, when asleep, but never devours them.

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4. Sand Bear.—*Ursus tetradactylus*.

Has only four toes on each foot. Bewick, Gen hist. of quad. ed. 1791, p. 257. and fig.

This animal is rather less than the Common Badger: It is almost destitute of hair, extremely sensible of cold, burrows in the ground, and is of a yellowish white colour: The eyes are small; the legs are short; the feet are armed with sharp white claws; and the tail is considerably longer in proportion than in the three former species, which have only a stump in place of a tail. The place of this animal is uncertain: It is engraven by the ingenious Mr Bewick of Newcastle, on wood, from a drawing of a specimen in the Tower of London.

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5. Common Badger.—4. *Ursus Meles*. 2.

Has a short tail of the same colour with the body, which is dark ash coloured on the upper parts, and black below; the face is whitish, with a pyramidal longitudinal black band including the ears and eyes. Faun. Suec. 20. Schreber, iii. 516. t. cxlii.

Meles, or Badger, having very long claws on the fore paws. Syst. nat. ed. vi. 6.—Meles, or Badger, covered with a mixed black and dirty whitish fur, having the head marked with alternate white and black stripes. Briss. quad. 183.—Meles, Taxus, Tassius, Bicerellus, Jazwiec, Borsuk. Rzaczinski, Polon. 233.—Grey Coati, Short-tailed Coati, Taxus, Meles, Tax. Klein, quad. 73.—Badger, Blaireau, or Taisson. Sm. Buff. iv. 226. pl. lxxvii.—Common Badger. Penn. hist. of quad. n. 179. BRIT. ZOO. i. 64. D°. illust. tab. lii. Weir's Mus.—Tachs. Ridinger, jagd. thier. t. 17. Its Anatomy. E. N. C. d. 2. a. 5. obf. 32. and d. 3. a. 3. obf. 163.

The two following varieties are mentioned by authors.

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β. White Badger.—*U. Meles alba*.

Of a white colour on the upper parts, and yellowish white below. Briff. quad. 185.

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γ. Spotted Badger.—*U. Meles maculata*.

Of a white colour, marked with reddish yellow and dusky spots. Ridinger, allert. thier. t. 24.

Inhabits Europe and the north of Asia, as far as the northern provinces of Persia and China, and in Japan.—The White Badger is said by M. Briffon to have been brought from New York; it has very small eyes, and very short legs, and is only one foot nine inches long, with a tail of nine inches: This variety, or species, is by Mr Bewick supposed to be the same animal with the Sand Bear, already described. The spotted variety is very rare, nor is it mentioned from what country it was brought. The Badger lives in woody places, in the clefts of rocks, or among stones, and in burrows or holes, of its own digging, but from which he is often driven by the Fox, which is not so well adapted for burrowing in the earth. It is very cleanly, and always allots a particular place for its excrement: The male and female live together in pairs, propagate in November, or the beginning of December, and, after nine weeks, the female brings forth from three to five young ones at a birth: It lives on insects, eggs, roots, fruits, the leaves of *Secale*, *Lathyrus*, and other vegetables, and on rabbits; keeps in its hole all day, and only goes abroad during night: It is very indolent, and sleeps much, yet grows prodigiously fat. During the severe weather of winter, it remains in a torpid state in its hole, sleeping on a commodious bed made of dried grass. The Badger is furnished with a transverse orifice, about an inch deep, between the tail and anus, which discharges a fetid white matter, which the animal is fond of sucking; the fore-teeth are six in each jaw, equal, simple, and parallel to each other; the eyes are provided with a white membrana nictitans, capable of covering the whole ball; the female has six teats, two on the breast, and four on the belly; the feet are short, and are furnished with five claws, those on the fore feet being very long and straight: The Common Badger is about two feet and a half in length, and the tail six inches; it is of a very clumsy make, weighing from fifteen to thirty-four pounds; it runs very slowly, defends itself against dogs with great vigour, biting very severely, and being very tenacious of life. It may be tamed, if caught young; and the flesh, when well fed, makes excellent hams and bacon.

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6. American Badger.—5. *Ursus labradorius*. 7.

The tail is covered with long dirty yellow hairs, tipped with white, having the end dusky; the throat, breast, and belly, are white; the fore feet have only four toes. Schreber, iii. 520. t. cxlii. B.

American Badger. Penn. hist. of quad. n. 179. β. Arct. zool. n. 23.—Carkajou. Sm. Buff. vii. 285. pl. 2. ccxl.

Inhabits Labradore, and the country about Hudson's Bay, in North America.—This animal, which has a very strong resemblance to the Common or European Badger, is somewhat smaller, and the hair is longer, more soft, and silky; the ears are short, and of a white colour edged with black; the head is white, with a black line on each side running from the fore-head, close to the inner corner of

the eye, down to the nose; the hair on the back is four or five inches long, bright brown for the under half, then bright yellow, above that black, and white at the tips; the legs are short, and of a dark brown colour, having five claws behind and only four before, which are considerably longer and larger; but the want of the fifth claw on the fore feet, being described from a dried specimen, may have been owing to accident. It is uncertain whether this animal possesses the orifice under the tail. In each jaw there are six fore-teeth, one tusk on each side of each jaw, and four grinders on each side in both; in all thirty-two.

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7. Indian Badger.—*Ursus indicus*.

Has a black face; the crown of the head and upper parts of the body are white, and the lower parts black. Penn. hist. of quad. n. 180.

Inhabits India.—This species is described, by Mr Pennant, from a specimen in the collection of Mr John Hunter, Surgeon General to the Army. It is playful, lively, and good natured; feeds on flesh; sleeps rolled up; and climbs with great readiness: The head is small, with a pointed nose, and a prominent oval rim instead of ears; the nose and face, to a little beyond the eyes, are black; the crown of the head, upper part of the neck, back, and upper part of the tail, are white, inclining to grey; the legs, thighs, breast, belly, sides, and under part of the tail, are black; it has five toes on each foot, the inner one smaller than the rest, all armed with very long straight claws; the hair is short and smooth; the head and body are about two feet long; the tail four inches. It refuses any commerce with the Common Badger. No notice is taken of the orifice near the tail.

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8. Racoon.—6 *Ursus Lotor*. 3.

The tail is surrounded with different coloured rings; and a black band crosses the face, including both eyes. Schreber, iii. 521. t. cxliii.

Ursus cauda elongata, or Long-tailed Bear. Aët. Stock. 1747, t. 9. f. 1. Houttuyn, nat. ii. 237. t. 15. f. 1. Brissl. quad. 189.—Mapach. Fernand. anim. ii. 1. Nieremb. hist. nat. 175. Jonst. quad. t. 74.—Coati. Raj. quad. 179. Catefb. Carol. 121. Sloan, Jamaic. ii. 329. Worm. Mus. 319. Major, Mosh. 30.—Racoon. Kalm, It. ii. 228. 327. and iii. 24. Lawson, Carol. 121. Penn. hist. of quad. n. 178. Arct. zool. n. 22. Sm. Buff. v. 46. pl. ciii.—Wilde ziberthartige Kaze. Muller. del. nat. ii. 99. t. K. I. f. 2.

Inhabits America, especially the northern division, and the West India islands.—The Racoon lives in holes of trees, bringing forth two or three young ones in the month of May: It eats eggs, poultry, and shell-fish; washes its food in water, and uses the fore paws to carry it to the mouth; it has very delicate sensations of smell and touch; and a most tenacious memory, especially of injuries; it sleeps commonly from midnight till mid-day; and is said to have an aversion at hogs bristles; it climbs with great facility. The body is clothed with hair of a grey, or ash colour, at the roots, white in the middle, and tipped with black, which gives the fur the appearance of being shaded with dusky transverse waved rings; the head is of a dusky colour, with a sharp black pointed nose, a black band across the face surrounding both eyes, and crossed with a dusky line from the nose to the fore-head; the tail is very bushy, and is surrounded with black rings*; is easily tamed, active, good natured;

* Penis esse incurvato scatur.

natured, and sportive, but unlucky and inquisitive like a Monkey; sits up to eat on the hind feet, which are very long, using the heel to rest on; uses the fore paws like hands, with which it opens oysters, and is sometimes caught between the shells, and held till the tide flows and drowns it; is very fond of sweet things, and even of strong liquors, with which it sometimes gets very drunk.

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β. White Racoon.—*U. Lotor melinus*.

Of a cream colour or yellowish white. Penn. hist. of quad. p. 265. Lever. Mus.

The place and history of this animal is unknown. It is barely mentioned by Mr Pennant, as resembling the Common Racoon in every thing but colour.

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γ. Wolverene.—7. *Ursus luscus*. 4.

Has a long tail; the head, back, and belly, are of a reddish brown; the face black; and the sides of a yellowish brown colour.

Ursus castaneus, or Chestnut Bear, the tail being of a uniform colour with the body; the snout and legs black. Briff. quad. 188. — Quickhatch, Carcajou, or Wolverene. Catesby, Carol. app. xxx. Dobbs, Hudson's Bay, 40. Ellis, Hudson's Bay, 42. Edw. av. ii. 103. t. 103. Penn. hist. of quad. n. 176. pl. xxxiii. f. 2. Arct. zool. n. 21.

Inhabits the country about Hudson's Bay, and in Canada.—Resembles the Wolf in size, and the Glutton in the figure of its head; the hair is long and harsh; the tail is of a chestnut colour, somewhat darker at the extremity; it has only four toes before and five on the hind feet; the muzzle, to half way between the eyes and ears, is black, and conically pointed; the ears are short, rounded, almost hid in the hair, and edged with white; the fur on the head, back, and belly, are reddish, with black tips, so as to appear almost black; the sides are yellowish brown, and a band of this colour crosses the back near the tail; there are some whitish spots on the throat and breast; the legs are very strong, thick, short, and black, having five toes on each foot, not deeply divided, armed with strong sharp claws, which are white at the ends; the soles of the feet are thickly covered with hair, and reach as far as the heel, on which the animal rests in walking; the back is highly arched; the tail is covered with long coarse hairs, near six inches in length, of the same colour with those on the body; the length of the head and body is two feet four inches; and of the stump of the tail seven inches, but the hair reaches six inches farther. The colour of this animal varies according to the season of the year; it is exceedingly voracious, and being slow of foot, has to take its prey by surprise; it watches for Beavers, which it takes as they come from their houses, and sometimes forces its way into their habitations; it is very fierce, and is even a terror to Wolves and Bears; it burrows under ground; is very fetid; sometimes lurks on trees, and drops down on deer passing below, fastening on them till they are quite exhausted.

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δ. Glutton.—8. *Ursus Gulo*. 8.

The body and tail are of a glossy black, or dark brown colour, with a tawny line all down the middle of the back. Schreber, iii. 525. t. cxliv.

Mustela rufo-fusca, or Reddish-brown Weasel, with a black list along the middle of the back. Syst. Nat. ed. xii. 67. Faun. Suec. 14. Houtt. nat. ii. 189. t. 14. f. 4. Gunner, act. Nidros. iii. 123. t. 3. f. 5.—Gulo. Georgi, it. 160. Pallas, Spicil. zool. xiv. 25. t. 2. Gesh. quad. 554. Aldrov. dig. 178. Jonst. quad. 131. t. 57. Scheffer, Lap. 339. Rzaczynsk. Pol. 218. Klein, quad. 83. t. 5. Zimmermann, Spec. zool. geogr. 309.—Vielfraß, Rossomaka, Jarß, Jæerven, Fieldfroß. Genberg, act. Stockh. 1773. 222. t. 7. 8. Bell's trav. i. 235. Pontopid. Norw. ii. 22.—Glutton. Penn. hist. of quad. n. 177. Sm. Buff. vii. 274. pl. ccxl.—The Anatomy. Barthol. Cent. 4. obs. 30.

Inhabits America, Asia, and Europe, in the more northern parts; is rarely found in Poland and Courland; and very rarely in Germany.—Dwells chiefly in the mountains, and in large forests; procreates in January, and brings forth one, two, or three young ones in the month of May; the female retiring for this purpose into the closest recesses of the woods: It is a cunning and voracious animal, and climbs with great facility; feeds on hares, murine quadrupeds, rein-deer, birds, dead carcasses of all kinds; even on fish, cheese, and almost every kind of eatable; it never attacks mankind, unless forced in its own defence; it defends itself against dogs by its intolerable fetor, which however becomes less unsupportable after death. When young it may be tamed; and the fur is reckoned valuable. It is larger than the Badger, and thinner in the body; which is sometimes three feet eight inches in length from the nose to the rump, and nineteen inches high; the tail is six inches long; the legs are very thick, short, strong, and hairy, having five toes on each foot, some authors say only four; the tail is shorter than the hind legs, and very hairy; the female has six teats; there are six fore-teeth in each jaw, the middle four in the upper jaw being equal in size, and as if lobed on both sides; the outer one on each side is longer, and stronger than the rest, its fore side rises into a conical point, while the back half of the tooth is lobed; the lower fore-teeth are blunted, as if cut through the middle, two alternately are placed within the general line, those in the middle are rather smaller, and the outer ones are larger and thicker than the rest; the tusks are thick, conical, very strong, and somewhat blunt, those of the upper jaw being larger than those below, standing at a distance from the fore-teeth, and are furrowed on the outer surface; the lower tusks are placed near the fore-teeth and grinders; there are five grinders on each side above, and six below, all knobbed, the first and last being very small: The head is round, with a thick blunt nose, and short rounded ears, a little pointed at the tips; the back is straight, and has a tawny list along the middle of its whole length; the tail is short and very full of hair; the whole body is of a fine glossy black, watered or damasked like silk, sometimes varying to brown.

β. White Glutton—*U. Gulo albus*.

Of a white colour, sometimes tinged with yellow. Penn. hist. of quad. p. 293.

This variety is sometimes found in Kamtschatka, where the skins are very highly esteemed.

XIX. OPOSSUM.—18. *DIDELPHIS*. 17.

The fore-teeth are very small and rounded; of these there are ten in the upper jaw, with two intermediate ones longer than

than the rest; in the lower jaw are eight, with two intermediate broader than the rest, and very short: The tusks are long; the grinders knobbed: The tongue is furnished with a fringe of pointed papillae. In most species the female has a pouch or false belly, within which the teats are placed. In general, the tail is long, slender, and naked.

This genus is chiefly confined to America, at least most of the known species, till lately, were of that country; none have hitherto been discovered in Europe, or Asia, except one species; and lately some species have been found in the vast island of New Holland. They mostly dwell in burrows, or holes, in woody places, of their own digging, and frequent trees, which they climb with great facility, often by the help of their tails, which, in many species, are prehensile; their gait is generally rather flow; they feed on birds, particularly poultry, insects, worms, and vegetables; for the most part, their feet are completely divided into five toes, several of them having a distinct thumb, on the fore paws, at some distance from the other toes: The male penis is mostly very much concealed, and has a divided glans; in many species the females are provided with a kind of purse, or false belly; in some there are two, or even three, distinct cavities, which can be shut or opened at pleasure, being provided with two bones for that purpose, and in this the teats are situated, and the young ones are kept there after birth as in a nest, hanging perpetually to the nipples, till they grow large enough to run about; even the males of these species are said to be furnished with this singular provision.

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1. Amboina Opoffum.—1. *Didelphis marsupialis*. 1.

Has eight teats within the pouch. Schreber, iii. 536. t. cxlv.

Amboina Philander, of a blackish red brown colour on the back, the belly of a pale yellowish ash colour, and having a dusky brown spot over each eye. Briss. quad. 201.—Philander orientalis maximus, or Largest Oriental Philander. Seba, Mus. i. 64. t. 39. Klein, quad. 59.—Greater Molucca Opoffum. Penn. hist. of quad. n. 182. a.

Inhabits Amboina, according to Pennant, or Surinam, according to Gmelin.—This species is about the size of a large Cat or Martin: The nostrils are half-moon shaped, and perpendicular; the muzzle is furnished with five rows of whiskers; at each angle of the mouth are eight long bristles, and five under the throat; the ears are oval, loose, of a black colour, and tipped with white; the back grinders are knobbed, and the fore ones single pointed, the foremost being very small; the lower parts of the legs are black and very smooth; the tail is as long as the body.

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2. Brazilian Opoffum.—2. *Didelphis Philander*. 2.

Has four teats; the tail is hairy at the base, and the ears are pendulous. Schreber, iii. 541. t. cxlvii.

Brazilian Philander, having the fur of a whitish colour at the roots and blackish at the tips. Briss. quad. 210.—Tlaquazin, or Tai-ibi of the Brazilians. Seba, Mus. i. 57. t. 36. f. 4.—Faras, or Ravale. Gumilla, Orenoqu. iii. 238.

Inhabits

Inhabits South America.—The body and head are about nine inches in length, and the tail fourteen; the muzzle has six rows of whiskers; the orbits are surrounded with a brownish circle; the legs are whitish; and the naked part of the tail is whitish, with brown spots.

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3. Sarigue.—3. *Didelphis Opossum*. 3.

The tail is hairy near the base; over each eye is an oblong white spot. Schreber, iii. 537. t. cxlvi. A. B.

Philander spadiceus, of a dark chestnut colour on the back, the belly yellow, and having a yellowish spot over each eye. Briff. quad. 207. Seba, Mus. i. 56. 57. t. 36. f. 1. 2. 3.—Vulpes major putoria, Larger stinking Fox, or Acuary, having a round naked tail. Barrere, Fr. equin. 166.—Semivulpa. Gefn. quad. 870. Aldrov. dig. 223.—Tlaquatzin. Hernand. Mex. 330.—Tai-ibi, of the Brasilians. Marcgr. Bras. 223.—Carigueia. Marcgr. Bras. 222. Pif. Bras. 323. Tyfon, Phil. Transf. n. 239. p. 105. Cowper, Phil. Transf. n. 290. p. 1565.—Opossum. Catesby, Carol. 120.—Sarigue, or Virginian Opossum. Sm. Buff. v. 404. pl. clviii. clx.—Mollucca Opossum. Penn. hist. of quad. n. 182.

Inhabits the warm and temperate parts of America.—Has long, oval, naked ears; a wide mouth; an oblong white spot over each eye; the lower side of the upper jaw, the throat, and belly, are of a whitish ash colour; the hair on the rest of the body is of a whitish ash colour, tipped with tawny, and darkest on the back; the tail is as long as the body, and naked, except near the base, where it is covered with hair; the claws are hooked; there are ten fore-teeth in the upper, and eight in the lower jaw: The head and body are about ten inches long.

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4. Molucca Opossum.—3. *β. Didelphis molucca*. 3. *β.*

The back is of a dark brown colour, the belly yellowish, and there is a yellow spot over each eye. Briff. quad. 209.

Inhabits Ceylon, the Philippine and Molucca islands.—In Dr Gmelin's edition of the Systema Naturae, this is made a variety of the preceding species; but the remarkable difference of country forbids that idea: There is a considerable confusion among naturalists, respecting the various species of this genus, to remedy which every exertion has been made, but not with entire success; the following descriptive account from the Systema Naturae is there meant as referring to both this and the preceding article.

By means of the tail, which is prehensile, these animals climb trees, and spring from tree to tree with great facility; but, in other respects, they are very slow of foot; they may be tamed; the female brings four or five young ones at a birth, which she keeps with great care in her pouch, or false belly; the voice resembles the grunting of a hog; the length of the head and body is about a foot; the head is longer and sharper than in the Brazilian Opossum, but shorter than that of the Amboina species; the ears are short and rounded; the female has five or seven teats; the tail is shorter than the body, and is hairy at the base, the naked part being whitish.

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5. Virginian Opoffum.—*Didelphis virginiana*.

The tail is shorter than the body, and hairy at the base, the rest is naked and prehensile; the face is white, with a dusky space round the eyes; the body is thick, clumsy, and blackish on the back; the sides dusky; the belly dirty white; the legs and thighs black. Penn. hist. of quad. n. 181. pl. xxxvi. Arct. zool n. 24.

Inhabits Virginia, Louisiana, Mexico, Brasil, and Peru.—Mr Pennant describes and figures this animal from a specimen in the Leverian Museum: He supposes it to be the same with the *Didelphis marsupialis* of Linnaeus, but, at the same time, expresses his doubt of the identity by a mark of interrogation: Dr Gmelin, on the contrary, quotes this species from Mr Pennant as synonymous with the *Didelphis Opoffum*, or *Sarigue* of Buffon and of this edition; there is not, however, any resemblance in the three descriptions, and I have therefore ventured to disjoin them.—T.

From the tip of the nose to the tail this animal is twenty inches long, and the tail twelve; the nose is long, and sharp pointed, having long stiff hairs on each side; the ears are large, rounded, naked, very thin, of a black colour, and edged with white; the eyes are small, black, lively, and surrounded with a dusky space; the face is covered with soft, short, white hair; the neck is very short, thick, and of a dirty yellow colour at the sides; the hind part of the neck, and the back, are covered with long, soft, uneven hairs, which are yellowish white at the bottom, black in the middle, and whitish at the ends; the hair on the sides is of the same length, mixed dirty white and dusky colours; the belly is covered with soft, woolly, dirty white hair; the feet are dusky, with white claws, having five toes on each; the great toes on the hind feet are distinct, and like a thumb; the base of the tail is hairy; the rest is prehensile, and covered with small scales, like a snake, the first half being black, and the rest white; the body is round, very thick and clumsy, with short black legs; the female has a pouch or false belly in which the teats are placed, and in which the young take shelter immediately after birth, fastening so closely to the teats that they can hardly be separated; they are then very small, naked, blind, and resemble foetuses; when older, they acquire hair, get their sight, and venture out of the pouch, but return on the least alarm. This animal is very fetid, yet the flesh, even of the old ones, is very good, and eats like that of a sucking pig.

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6. Cayopollin.—4. *Didelphis Cayopollin*. 6.

The tail is longer than the body; the belly has no pouch; the eyes are surrounded with a slight black ring. Schreber, iii. 544. t. cxlviii.

African Philander, of a dark chestnut colour on the back, the belly of a yellowish dirty white, and the tail marked with dark chestnut spots. Briss. quad. 212.—Cayopollin, with a prehensile tail. Fernand. nov. hisp. 10.—Male African Mouse, named Kayopollin. Seba, Mus. i. 49. t. 31. f. 3.—Cayopollin, or Mexican Opoffum. Sm. Buff. v. 438. pl. cxlii. Penn. hist. of quad. n. 186.—Cayopollin, f. *Animal caudimanum*. Nieremb. hist. nat. 158.

Inhabits the mountains of New Spain.—The muzzle is thicker, and the ears shorter and narrower, than those of the *Didelphis Opoffum*, or *Sarigue*, already described, or of the *Didelphis murina*, which follows; the body is from six to nine inches long; the tail is longer, being hairy at its origin, and the rest naked, but marked with dark chestnut coloured spots on a whitish ground. Mr Pennant describes this species from a specimen in the Leverian Museum, having large, angular, and transpa-

rent ears; very large whiskers; the face of a dirty white, with a dark line down the middle; the hair on the head, and upper part of the body, ash coloured at the roots, and deep tawny at the tips; the legs and feet dusky, with white claws; the belly of a dull cinereous colour; the tail long and thin, varied with brown and yellow, hairy for the first inch, and the rest naked. It lives in trees, in which it brings forth its young; these cling closely to the parent when frightened. Neither Mr Pennant nor the Count de Buffon say whether this species has or wants the purse on the belly.

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7. Murine Opossum.—5. *Didelphis murina*. 4.

Instead of a false belly, the female has a fold on each side, including the teats. Penn. hist. of quad. n. 185.

Mouffe-like Opossum, or *Didelphis murina*, having six teats, and the tail hairy at the base. Syst. nat. ed. Gmelin, i. 107. n. 4. Amoen. ac. i. 279. Mus. ad. Fr. ii. 8. Schreber, iii. 545. t. cxlix.—American Philander, having the back of a dark chestnut colour, and the belly of a pale yellow. Briss. quad. 211.—Philander, having the teats on the abdomen not included in a purse; with a very long, round, naked tail, and a long shaped body. Gronov. zooph. i. 9. n. 33.—Scalopes. Seb. Mus. i. 48. t. 31. f. 1. 2.—Marmose, or Murine Opossum. Sm. Buff. v. 435. pl. cxl. cxli. Penn. hist. of quad. n. 185.

Inhabits the hotter parts of America.—The length of the head and body is six inches and a half, and the tail is about the same; the muzzle has six rows of rusty brown whiskers, except the lowest row which is white, all shorter than the head; the back is arched, and it and the top of the head are of a tawny colour; the belly is yellowish white; the ears are long, broad, naked, thin, and rounded at the ends; the feet have each five toes, with distinct thumbs, all furnished with very sharp claws: The female has fourteen teats, according to the Count de Buffon from inspection, to which the young, sometimes ten at a birth, attach themselves immediately when brought forth; these are at first not bigger than small beans, and never quit their hold till they have acquired considerable size and strength. This species burrows in the ground, climbs trees, fixes itself to the branches by the assistance of its prehensile tail, and darts on birds and small animals; it likewise eats fruits, grain, and roots, but prefers fish and crabs. It is very slow, and stupid in all its actions.

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8. Guiana Opossum.—*Didelphis guianensis*.

Of a brown colour on the upper parts, and white beneath. Penn. hist. of quad. p. 308.

Inhabits Guiana.—This animal is barely mentioned by Mr Pennant as a variety of the preceding; with which, therefore, we must presume that it agrees in appearance.

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9. Surinam Opossum.—6. *Didelphis dorsifera*. 5.

Has short blunt nails on all the thumbs, and on the fingers of the fore paws; those on the hind toes are small and sharp pointed.

Didelphis dorsifera, having the tail hairy at its base, and longer than the body; the fingers of the fore paws being unarmed. Syst. nat. ed. Gmel. p. 107. n. 5. Schreber, iii. 546. t. cl.—*Glis sylvestris*.

tris. Merian, insect. furin. 66. t. 66.—*Glis sylvestris*, *Mus sylvestris*, f. *Sorex sylvestris*, from America. Seba, Mus. i. 49. t. 31. f. 4. 5. ii. 90. t. 84. f. 4.—Surinam Philander, of a tawny red on the back, and whitish yellow on the belly. Briff. quad. 212.—Surinam Opoffum, or Merian Opoffum. Sm. Buff. viii. 267. Penn. hist. of quad. n. 191.

Inhabits Surinam.—This species is about ten inches long, from the nose to the rump, the tail being rather longer; it burrows in the ground; the female brings five or six young at a birth, which adhere to their parent when threatened with any danger, by twisting their prehensile tails round hers, and riding on her back: The ears are long, sharp pointed, and naked; the head and upper parts of the body are of a yellowish brown, or reddish yellow colour, which becomes bright red on the back; the front, muzzle, belly, and feet, are whitish yellow; the orbits are surrounded with a dusky ring; the tail is naked and of a pale red, that of the male having dusky red spots; the feet resemble those of the Ape, having four fingers and a thumb on all the four paws: The young ones grunt like pigs.

10. Cayenne Opoffum.—7. *Didelphis cancrivora*. 7.

The upper jaw, on each side, is armed with a crooked canine tooth which reaches beyond the under jaw.

Didelphis cancrivora, or Crab-eater Opoffum, having a scaly and almost naked tail, nearly as long as the body; and a distinct thumb, or great toe, on the hind foot armed with a flat nail. Syst. nat. ed. Gmel. p. 108. n. 7.—Crab-eater, Crab-dog, or Crabier. Sm. Buff. viii. 279. pl. ccxciii.—Koupara, *Canis sylvestris major*, or Larger wild Dog, commonly called *Cancrofus*, or Crabier. Barrere, Fr. equin. 149.—Cayenne Opoffum. Penn. hist. of quad. n. 187.

Inhabits Cayenne.—This animal is about eighteen inches long from nose to rump, and six and a half inches high; the tail is prehensile, greyish, scaly, naked, tapering, and about sixteen inches in length; the head is long, with a pointed muzzle, and short, erect, somewhat pointed ears; the fur is woolly, of a yellowish white on the sides and belly, deeper yellow on the shoulders, thighs, neck, breast, and head, and mixed with brown in some places; this woolly fur is mixed with long stiff hairs, near three inches in length, which are of a dirty white colour at the roots, and dark brown, almost black, at their extremities; these increase in number on the thighs, and on the ridge of the back, which is totally covered with them, so as to form a kind of mane from the middle of the back to the origin of the tail; the legs and feet are of a blackish brown colour, having four crooked toes and a straight thumb on each foot, the great toes or thumbs being thick, broad, and distant; the nails of the thumbs and great toes are flat, but the other toes are armed with short crooked claws. This species is very common in Cayenne, frequenting the Savannahs and other marshy places, and climbs trees with great dexterity: It lives chiefly on crabs, and is always fat: When it cannot reach the crabs in their holes with its paws, it introduces the prehensile tail to hook them out, and in this attempt it often gets pinched, on which occasion it emits a cry, somewhat like that of mankind, which is heard at a great distance; but its ordinary voice is a kind of grunt: The female brings four or five young ones at a litter, and, having no pouch, deposits them in the hollows of old trees. It may be tamed with great ease, and fed, like Dogs and Cats, with all kinds of victuals: Its flesh resembles that of a Hare, and is eaten by the natives of South America.

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11. New-Holland Opossum.—*Didelphis caudivolvula*.

The tail is taper, hairy and prehensile at the end. Penn. hist. of quad. n. 188. Cook's voy. iii. 586.

Inhabits New-Holland, near Endeavour river.—The head and body are about thirteen inches long, being covered on the upper part and the sides with long, soft, glossy hairs, of a dark cinereous colour at the roots, and rusty brown at the ends; the tale is taper, and of the same length with the head and body; two-thirds of its length is covered with short brown hair, the extremity being white, and naked underneath; the paws are furnished with thumbs having flat nails, and the toes have short claws: This species lodges among the long grass, but is little known.

In Governor Phillips voyage to New-South-Wales, p. 148, is a description of this animal, or one very nearly allied to it, in the possession of Mr John Hunter of London, sent from New-South-Wales: The countenance resembles that of a Fox, but the manners approach to those of the Squirrel; when disposed to sleep it coils in a round form, but when eating, or on the watch, it sits erect, using its fore feet to feed with, or to hold any thing; when irritated it utters a loud harsh noise; and only feeds on vegetables: The fur is long, close, thick, and of a mixed brown and greyish on the back; the belly and neck are yellowish white; the head and body measure eighteen inches, and the tail twelve; The muzzle is pointed and garnished with long whiskers; the fore paws have five toes armed with claws; the hind paws three toes with claws, and a distinct thumb or great toe; in each jaw there are two fore-teeth; the testicles are large and pendulous: The female has a pouch on the belly.

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12. Short-tailed Opossum.—8. *Didelphis brachyura*. 8.

Of a red colour, with a short hairy tail, naked ears, and no pouch. Schreber, iii. 548. t. cli. Pallas, act. Petrop. 1780, ii. 235. t. v.

Philander obscure-rufus, of a dark red colour on the back, and tawny on the belly, with a short thick tail. Brissl. quad. 213.—Philander, without any pouch over the teats, and having a short, thick, hairy tail. Gronov. zooph. i. 9. n. 35.—Mus sylvestris femina, from America. Seba, Mus. i. 50. t. 31. f. 6.—Short-tailed Opossum. Penn. hist. of quad. n. 189.

Inhabits South America.—This animal is from three to five and a half inches long; the tail is hardly half that length, and is covered with hair, thick at the base, and gradually lessens to the extremity. The fur is exceedingly soft and glossy, of a dull red colour on the upper parts, and paler red or tawny on the belly, with a beautiful red streak along the sides of the head and body. This species lives in the woods; the female, which has no false belly, brings from nine to twelve young at a birth, which adhere to the teats as soon as born. The head resembles that of the *Didelphis Cayo-pollin*; the snout is shorter than that of the *Didelphis Opossum*, and thicker than that of the *Didelphis murina*, with which species it agrees in the general form of the body, in the want of the pouch, and in the male penis being placed backwards below the scrotum.

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13. Oriental Opossum.—9. *Didelphis orientalis*. 9.

The tail is longer than the body, hairy from its base to the middle, the rest naked and prehensile; the two middle toes of the hind feet are united. Pallas, miscel. zool. 59. Erxleb. mam. 79. Schreber, iii. 550. t. clii.

Phalanger.

Phalanger. Sm. Buff. vii. 174. pl. ccxvii. ccxviii. Penn. hist. of quad. n. 190.—Coefcoes. Valent. Ind. iii. 272.

Inhabits the East Indian islands, and perhaps likewise in New Holland.—This animal resembles the Squirrel in its voice and mode of feeding, and is extremely timid: The female has two or four teats, and brings as many young at a birth, having no pouch: The head is very thick, with a blunt nose, and short, hairy ears; the legs are very short, and the toes have long, crooked, strong claws; the two first toes of the hind feet are attached together, and the hind paws have distinct thumbs with flat nails; in the male the upper parts of the body are of a reddish brown, mixed with ash colour, with a black line down the hind part of the head and middle of the back; all the hinder parts of the body being very dark coloured; in the female, the fur is much marked with white; in both, the belly, throat, legs, and part of the tail, are of a dirty yellowish white: In the upper jaw there are eight cutting teeth, and only two in the lower.

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14. Javan Opoffum.—10. *Didelphis Brunii*. 10.

The hind legs are much longer than the fore, and have only three toes on each; the tail is short and naked. Schreber, iii. 551. t. cliii. Pallas, act. Petrop. ii. 229. t. ix.

Javan Opoffum. Penn. hist. of quad. n. 183.—Filander. Le Brun, voy. to E. Ind. Eng. edit. ii. 101. t. ccxiii.

Inhabits the island of Java.—This animal is about the size of a Hare, with a narrow Fox-like head, having upright pointed ears, and a brown stripe passing through the orbits across the face; the upper jaw has six fore-teeth, and the lower only two, and there are no tusks in either jaw; the fore legs are very short, with five toes on each; the hind legs are very long, having two very large, strong toes, and one very small one on the outside, which is found to consist of two sets of bones, and to have two closely united slender claws; the belly is furnished with a complete pouch for the reception of the young. From the structure of the legs, this animal leaps, instead of walking, in the manner of the Jerboas: They are kept, in Java, along with rabbits, in inclosures, and burrow in the ground.

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15. Kanguru.—11. *Didelphis gigantea*. 10.

The tail is long, thick, tapering, and hairy; the hind legs are very long, and furnished with three toes; the ears are erect, and the body is very large. Schreber, iii. 552. t. cliv.

Kangaroo, or Kanguruh. Cook's voy. iii. 577. t. xx. Hawkesworth, voy. iii. 174. t. 51. Penn. hist. of quad. n. 184.—Gigantic Jerboa. Zimmerman, 526.—*Macropus giganteus*, or Great Kangaroo. Nat. misc. pl. 33.

Inhabits the western side of New Holland.—The head, neck, and shoulders of this animal are small, but the hinder part of the body is large and thick; the head and body are above three feet long, when full grown, the tail two feet nine inches; it sometimes weighs above eighty pounds: The head is long and tapering, the upper lip divided, and the end of the nose black; the ears are thin, oval, erect, and covered with short hair; there are no tusks in either jaw; in the upper jaw are four broad fore-teeth, standing perpendicular to the jaw; the lower jaw is shorter than the upper, and has only two long

long sharp fore-teeth, standing directly forwards; each jaw has four grinders on each side, which are placed far back in the mouth; the belly is large and prominent, but has no pouch; the fore legs are very short and ufeless for walking, having five toes armed with long, strong, conical claws; the hind legs are almost as long as the body, with thick thighs, having only three toes on each foot; the middle one is very long and thick, with a strong large claw; the other two, one on each side, are small and distant from the middle one, have short thick claws, and the outer toe has two small close set claws, feemingly only one without a narrow infpection: The fcrotum of the male is large and perdulous; the whole fur is afh coloured, fmooth, and short; the breaft and belly being confiderably paler. This animal lives among the long grafs, feeding on vegetables, is very timid, and moves by fupriling leaps, with the hind legs, over bufhes feven or eight feet high; and ufes the fore paws only for digging and carrying its food to the mouth. It is very good eating.

The Kanguru, and the next fpecies, though placed in this genus, on the authority of Dr Gmelin, ought certainly to have been arranged in the order of Glires, from their having no tuks.—T.

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16. Phillips Opoffum.—*Didelphis tridactyla*.

The tail is long, tapering, and hairy; the hind legs are very long, and are furnished with three toes; the ears are rounded, and the body is very fmall.

Kanguroo Rat. Gov. Phillips voy. to Botany Bay, 1789, p. 277. and plate.

Inhabits New South Wales.—The conftruction of the whole body and of the legs, both before and behind, is exactly fimilar to that of the Kanguru; from which it chiefly differs in fize, being about as big as a fmall Rat, while the former animal is as large as a Sheep. In the upper jaw there are two sharp pointed cutting teeth in front, and three broad ones on each fide; in the lower jaw two long pointed fore-teeth, extending directly forwards; on each fide of each jaw, at a diftance from the fore-teeth, are three grinders, the foremoft of which are sharp edged, and have the fides channeled or fluted. The fur is fmooth, and of a uniform dark brown colour; the breaft and belly being paler than the reft.

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17. Vulpine Opoffum.—*Didelphis vulpecula*.

The tail is long, thick, and hairy; for three quarters of its length it is black, and the origin is of a grifly colour, like the body.

Vulpine Opoffum. Gov. Phillips voy. to Botany Bay, 150. and plate.

Inhabits New South Wales.—The head and body meafure twenty-fix inches, and the tail fifteen; the legs are short, and of an equal length; the foot is long, and refts in walking as far as the heel; each foot has five toes, all armed with sharp crooked claws, except the thumb, or great toe, on each hind foot, which is placed high up on the foot, and has no claws; the head is long, with a pointed muzzle, which is garnifhed with ten or twelve very long black whifkers, which ftand backwards, and are longer than the head; the ears are long, erect, and pointed; the upper jaw has four fore-teeth, and the lower two, which point forwards, both being like thofe of the Kanguru; on each fide, in the upper jaw, are two fmall tuks, but none below; there are four grinders on each fide in both jaws. The whole upper parts of the body, and firft quarter of the tail, are of a grifly colour, proceeding from a mixture of duiky and white hairs; with a reddifh-yellow tinge, chiefly on the head and fhoulders:

ders; the rest of the tail is black; all the under parts of the body are of a tawny buff, which is deepest on the throat, where the bottom of the hairs is rusty brown.

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18. Spotted Opoffum.—*Didelphis maculata*.

The body is black and spotted with white; the tail is very bushy; and the female is furnished with a pouch.

Spotted Opoffum. Gov. Phillips voy. p. 147. and plate.

Inhabits New South Wales.—This animal measures fifteen inches, from the muzzle to the rump, and the tail about nine: The general colour of the animal is black, inclining to brown on the under parts, the neck and body being spotted with irregular roundish white patches; the ears are large, erect, open, and pointed; the muzzle is long, pointed, and garnished with very long whiskers at the nose; the fore and hind legs, from the wrist and heels, are ash coloured, and almost naked, having five toes on each, armed with long, sharp, black claws, except the thumb, or great toe, of the hind foot, which is higher up the foot than the rest, and has no claw; the first inch and half of the tail is covered with short hair, with one or two small white or grey spots; the rest, to the end, is very bushy, with long coarse hairs, disposed somewhat like that of a Squirrel. The female has six teats placed circularly, within a pouch, or false belly.

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19. Flying Opoffum.—*Didelphis volans*.

Has a broad hairy membrane, which extends from the middle of the fore legs to the ankle joint of the hind legs, and does not include the tail.

Black flying Opoffum. Gov. Phillips voy. p. 297. and plate. n. 55.

Inhabits New South Wales.—This animal measures twenty inches, from the nose to the rump, and the tail twenty-two: It is of a glossy black colour, slightly mixed with grey hairs, with a tawny spot on each hip; the under parts are white; along the middle of the back is a kind of mane, consisting of coarser and longer hairs; the tail is thick at the base, where it is of a light colour, and grows gradually smaller and blacker to the end; in the upper jaw are four small fore-teeth, and on each side two tusks, and five grinders; in the lower jaw, two fore-teeth, no tusks, and five grinders on each side, placed very far back; the fore paws have each five toes, armed with claws; the hind feet have four toes armed with claws, and a distant unarmed thumb; the two first toes, next the thumb, on the hind feet, are closely attached together, the next is not quite so much, and the last is quite free.

The *Lemur volans*, or Flying Maucauco, seems nearly allied to this species; from which it differs, however, in having the tail involved in the membrane.—T.

XX. MOLE.—19. *TALPA*. 18.

Has six unequal fore-teeth in the upper, and eight in the lower jaw; one tusk on each side in each jaw; seven grinders on each side above, and six below.

The Moles live entirely below ground, in cylindrical canals of their own digging, by which they go from place to place in quest of worms, which are their principal food; they likewise form circular nests near the surface of the ground, under flattish conical mounds or hills, in which they bring forth and rear their young. The body is thick, with a thick head and lengthened snout, the upper jaw being much longer than the lower; they have very short legs, the fore ones being hardly perceptible, but are furnished with very broad palmated paws, and the hind feet are small. They have no external ears, and the eyes are so very small, and so completely hid in the fur, as to make it vulgarly believed that they have none.

1. European Mole.—1. *Talpa europaea*. 1.

Has a short tail, and five toes on each foot.

Talpa caudata, or Tailed Mole, having five toes on each foot. Syst. nat. ed. xii. p. 73. Faun. Suec. 23. It. Scan. 332.—*Talpa*. Gefn. quad. 931. Aldrov. dig. 45. Raj. quad. 236.—Taupe, or Mole. Sm. Buff. iv. 309.—European Mole. Penn. hist. of quad. n. 349. BRIT. ZOOL. i. 108. Arct. zool. i. 142. A.

Of this species there are several varieties, but the first, or Black Mole, is the most common.

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α. Black Mole.—*Talpa europ. nigra*.

The fur is uniformly black.

Erxleb. mam. 114. Schreber, iii. 558. t. clvi. Sm. Buff. iv. 309. pl. lxxxvii. Penn. hist. of quad. n. 349.

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β. Variegated Mole.—*Talpa europ. variegata*.

The fur is variegated with white spots. Briff. quad. 205.

Talpa maculata, or Spotted Mole, from East-Friesland. Seba, Mus. i. 68. t. 41. f. 4.—Spotted Mole. Edw. glean. ii. 122. t. 268. Weir's Mus.

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γ. White Mole.—*Talpa europ. alba*.

The fur is uniformly white. Briff. quad. 205. Seba, Mus. i. 51. t. 32. f. 1. Weir's Mus.

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δ. Grey Mole.—*Talpa europ. cinerea*.

The fur is of a cinereous colour. Hubsch, Naturf. iii. 98.

Talpa cinerea, or Cinereous Mole, with narrow fore paws. Richter, Abhandl. uber die phys. Beschaff. von Boehmen. Prag. & Drefd. 1786. iv. 82.

The anatomy of the Mole is described, E. N. C. d. 1. a. 2. obf. 51. and d. 2. a. i. obf. 130.—Its method of digging, Gleditsch, oper. miscel. iii. n. 5. C. F. Paulin. de *Talpa*. Francof. 1689. De la Faille, Naturg. des Maulwurfs. Francof. 1778.

Inhabits the whole of Europe, and the more northerly parts of Asia and Africa.—The Mole chiefly frequents moist fields that are exposed to the sun, meadows, and gardens; through these it constructs subterraneous roads, or galleries, in every direction, in search of worms, on which, and the larvae of insects, it feeds, and not at all on vegetables, though it does great damage by loosening the roots of plants: It is most active in its operations before rain, because then the worms are in motion. The penis of the male is exceedingly long in proportion; they seem to pair, and propagate in spring, the female bringing four or five young at a birth, which are placed in nests made of moss, leaves, and dried grass, under the largest hillocks of the field; these are constructed with wonderful ingenuity, consisting of an interior hillock, surrounded with a ditch, which communicates with several galleries, on purpose to carry off the moisture, and the nest is covered over with a dome of earth, like the flat arch of an oven. Moles are destroyed by means of a paste, composed of palma-christi and white hellebore, or by flooding the fields which they infest; though, in the latter case, they sometimes escape by ascending trees.

The Mole is five inches and three quarters long, and the tail one inch; it has a large head, with no external ears, and very minute eyes, which are hid in the fur, but are susceptible of being extruded a little way; the snout is long, the upper jaw being much longer than the lower; the fore part of the body is thick and muscular, with very short fore legs, placed much sidewise; the fore feet are very broad, flat, and oblique, having large palms, with five short toes armed with strong claws; the hinder parts are taper, with small feet, having likewise five toes; the skin is exceedingly tough, and is covered with short, close-set, velvet-like fur, usually of a fine black, sometimes spotted with white, altogether white, or grey. There are none in Ireland; and those of Siberia are larger than the common kind.

405

2. American Mole.—*Talpa flava*.

Has five toes on each foot; a short tail; and is of a yellowish brown colour.

Talpa europaea flava, or Yellow European Mole. Syft. nat. ed. Gmel. i. p. 110. n. 1. ♀.—Yellow Mole. Penn. hist. of quad. n. 349. β.

Inhabits North America.—This species, or perhaps rather variety, resembles the European, but is larger, being six inches and a quarter in length, and the tail one: The hair is soft, silky, and glossy, of a yellowish brown colour at the tips, and dark grey at the roots; it is brightest in colour about the head, and darkest about the rump; the belly is deep cinereous brown; the feet and tail are white.

406

3. Crested Mole.—*Talpa cristata*.

Has five toes on each foot; a short tail; and the nose is surrounded with short radiated tendrils. Penn. hist. of quad. n. 351. pl. xlviii. fig. 1.

Sorex cristatus, or Crested Shrew, having a short tail, and the nose surrounded with radiated tendrils. Syft. nat. ed. Gmel. p. 112. n. 1.—Radiated Mole. Arct. zool. n. 69.

Inhabits North America.—Is about three inches and three quarters in length, the tail an inch and three tenths: The nose is long, and surrounded, at the point, with from ten to fifteen short, small, pointed, and naked tendrils, or caruncles, forming a star; the body is thick and round, like that of the Common Mole, and is covered with a fine, short, compact, and dusky coloured fur, rather longer

on the snout; the fore feet are white and small, but broad, with five toes; the hind legs scaly; the tail is slender, round, and taper; it has only four fore-teeth in the lower jaw, and four tusks in each jaw. This animal forms subterraneous passages in various directions, through uncultivated fields, raising ridges over them, about two inches high, and four in breadth; it feeds on roots, and has great strength in its legs. This species is placed in the Mole genus on the authority of Mr Pennant, and from its having the manners of that tribe, though, in the *Systema Naturae*, it is ranked with the Shrew, on account of the number of its teeth.

407

4. Long-tailed Mole.—2. *Talpa longicaudata*. 3.

Has five toes on each foot; the tail is about half the length of the body; and the nose is furrounded with radiated tendrils. Erxleb. mam. 118.

Long-tailed Mole Penn. hist. of quad. n. 352. pl. xlviii. fig. 2. Arct. zool. n. 68.

Inhabits North America.—This species is from four to six inches long, and the tail two, sometimes three: The fur on the head and body is long, soft, and of a rusty brown colour, but short on the tail; the fore feet are broad, naked, and palmated with strong short claws; the hind feet are scaly, with a few short hairs, and have long slender claws.

408

5. Brown Mole.—*Talpa fusca*.

Has five toes on each foot; the tail short; with two fore-teeth in the upper, and four in the lower jaw. Penn. hist. of quad. n. 355. Lev. Mus. Arct. zool. n. 70.

Sorex aquaticus, or Aquatic Shrew, with palmated feet, the feet and tail being short and white. Syft. nat. ed. Gmel. i. p. 112. n. 3. Schreber, iii. 566. t. clviii.—*Talpa virginiana nigra*, or Black Virginian Mole. Seba, Mus. i. 51. t. 32. f. 3. Kalm, It.

Inhabits North America.—The head and body are about five and a half inches long, and the tail is rather less than an inch: The nose is slender, the upper jaw being much longer than the lower; of the four lower fore-teeth the two in the middle are very small; it has no tusks; the fore feet are very broad, and the hind feet small; the fur is very soft and glossy, of a brown colour at the ends, and deep grey at the roots; the feet and tail are white.

This and the Crested species, though placed in the *Systema Naturae* among the Shrews, have the manners and figure of the Mole, and are therefore restored to this genus on the authority of Mr Pennant.—T.

409

6. Red Mole.—3. *Talpa rubra*. 4.

Has three toes on the fore feet, and four behind; with a short tail. Erxleb. mam. 119.

Talpa americana rufa, or Red American Mole, of a pale cinereous red colour, having three toes before, and four behind; and provided with a tail. Briff. quad. 206. Seba, Mus. i. 51. t. 32. f. 2. Penn. hist. of quad. n. 354.

Inhabits America.—In the form of its body this animal resembles the common species, but is somewhat larger, and the root of the tail is thicker.

7. Gilded Mole.—4. *Talpa aurea*. 2.

Has three toes on the fore feet and five behind; without any tail.

Talpa asiatica, or Asiatic Mole, having no tail, with three toes on the fore feet. Syst. nat. ed. Gmel. i. p. 111. n. 2.—*Talpa aurea*, or Golden Mole. Schreber, iii. 562. t. clvii.—*Talpa aurea sibirica*, or Siberian Golden Mole, of a greenish golden colour, with a tail, having three toes before and four behind. Briss. quad. 206.—*Talpa versicolor*, or Changeable Mole, from Siberia, called *Aspalax*. Seba, Mus. i. 51. t. 32. f. 4. 5.—Siberian Mole. Penn. hist. of quad. n. 350.—Gilded Mole. Sm. Buff. viii. 238.

Inhabits the Cape of Good Hope, according to Pallas.—The snout is shorter than that of the European species, and the nose is naked; the body and head are about four inches long; the fur on the upper parts of the body is varied with glossy green and copper colour, having a fine splendid appearance, as if tissued with green, golden, and reddish; the lower parts are of a cinereous brown; the space between the tip of the nose and corner of the mouth is covered with pale brown hair, and a broad whitish bar points upwards along the sides of the head: In each jaw there are two sharp cutting teeth, with a sharp tusk, contiguous to the fore-teeth on each side of the lower jaw; on the fore feet are three toes, with very large claws, that on the outer toe being exceedingly large; on each hind foot five small toes, with small weak claws; the rump is round.

Very much analogous to this genus, is the division of Murine quadrupeds, named Subterraneous, (***) or Mole-rats, which are ranged under a different order, on account of their having no tusks.

XXI. SHREW.—20. *Sorex*. 19.

Has two long fore-teeth in the upper jaw, which are divided into two points; in the lower jaw are two or four fore-teeth, the two middle ones, in the latter case, being shorter than the others: On each side in both jaws are two or more tusks: The grinders are knobbed.

The animals of this genus have in general thick clumsy bodies, and five toes on all their feet; the head resembles that of the Mole, being thick at the fore-head, much elongated, and ending in a conical snout, and having very small eyes; in other circumstances of general figure they resemble the Murine tribe of quadrupeds. They burrow in the ground, some species living mostly about the sides of waters; and most of them feed on worms and insects.

1. Minute Shrew.—2. *Sorex minutus*. 2.

Has a very long snout and no tail. Schreber, iii. 578. t. clxi. B.

Pigmy Shrew, *S. pygmaeus*, having a very long snout, five toes on all the feet, and no tail. Laxmann, Sibir. Brief. 72.—Minute Shrew. Penn. hist. of quad. n. 343.

Inhabits Siberia about the rivers Oby and Kama.—Dwells in moist or watery places under the roots of trees, forming a nest of lichens, and collecting a magazine of seeds; runs swiftly, and burrows with great readiness; bites fiercely, and has a voice similar to that of the Common Bat. The head is almost as large as the whole body, and has a very long slender nose, which is furrowed underneath, and garnished with whiskers reaching as far as the eyes; the ears are short, broad, and naked; the eyes very small, and retractile: The fur is fine, glossy, and of a grey colour in the upper parts of the body, the lower parts whitish. The whole body does not weigh above one dram, or the eighth part of an ounce.

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2. Musky Shrew.—4. *Sorex moschatus*. 6.

The feet are webbed; the tail is flattened edgewise, broadest in the middle, and ends in a point. Pallas, It. i. 156. Lepechin, It. i. 178. t. 13. Erxleben, mam. 127. Schreber, iii. 567. t. clix.

Castor moschatus, or Musky Beaver. Syst. nat. ed. xii. i. 79. Faun. Suec. p. 11. n. 28.—Mus. f. *Castor moschiferus*, Musk Rat, or Beaver, having the tail flattened vertically, and all the toes connected by membranes. Briss. quad. 92.—*Mus aquaticus*, f. *aquatilis*, or Water Rat. Clus. exot. 375. Jonst. quad. 169. t. 73. Aldrov. dig. 447. f. p. 448. J. G. Gmel. nov. com. Petrop. iv. 383. t. xiii. f. 5.—Long-nosed Beaver. Penn. Syn. of quad. n. 192.—Muscovy, or Musk Rat. Raj. quad. 217. Sm. Buff. v. 260. pl. cxxxii.—Musky Shrew. Penn. hist. of quad. 336.—Bisamraze. S. G. Gmel. It. i. 28. t. 3. 4.—Desman. Guldensfledt, Naturf. besch. iii. 107. t. 2.

Inhabits the countries between the Volga and Tanais, from the fiftieth to the fifty-seventh degree of northern latitude.—This animal measures seven inches in length, from nose to rump, and the tail is eight inches long; the head resembles that of a Mole, and has a long slender nose, which is cartilaginous, and very moveable, being garnished with twelve rows of white whiskers; it has no external ears, and very small eyes; the body is rather flat-shaped, and, besides the skin, is provided with a *panniculus carnosus*, or thin muscle peculiar to the skin, by which the animal is enabled to shake it violently; the head and body are of a dusky colour, the belly is a whitish ash colour; the feet are naked, scaly on their upper parts, and of a blackish colour; the tail is of a blackish or dusky colour; near the root of the tail are seven or eight small glandular orifices, of a yellow colour, from which may be expressed about twenty grains of a yellowish thick fluid, which has a very penetrating odour of musk or civet; in the upper jaw there are four fore-teeth; six tusks in each jaw; four grinders on each side in the upper, and three on each side of the lower jaw. This quadruped keeps constantly on the borders of lakes or rivers, in the banks of which it digs holes, similar to those of the Otter, the entrance being below the lowest fall of the water, and the apartment above its highest rise; it is very slow of foot; feeds on water flags and fish, and is greedily devoured by Pikes and other ravenous fish, by which these sometimes acquire so strong a flavour of musk as to render them uneatable.

413

3. Water Shrew.—5. *Sorex fodiens*. 7.

The tail is of a middle length; the body is blackish on the upper parts, and light ash coloured beneath; the toes are fringed at the edges. Erxleb. mam. 124. Schreber, iii. 571. t. clxi.

Mufaraneus,

Mufaraneus, having the upper parts of the body black, and the belly white. Merret, pin. 167.—Mufaraigne d'eau, Water Shrew, or Blind Mouse. Sm. Buff. iv. 308. pl. lxxxvi. fig. 2.—Graeber, or the Digger. Pallas.—Water Shrew. Penn. hist. of quad. n. 342. BRIT. ZOOL. illustr. tab. cii.—Sorex bicolor. Nat. misc. pl. 55.

Inhabits Britain, Burgundy, Germany, Prussia, and Siberia.—Burrows in the banks of rivers and ditches in fenny countries, swims with great facility, and often under water; it measures not quite four inches from nose to rump, the tail being two; the nose is long and slender, broader at the extremity than that of the Fetid Shrew, and is furnished with long ash coloured whiskers; the ears are very small, and are garnished within with a tuft of white hair; the eyes are very small and hid in the fur; the legs are longish, and white, with white feet; there are two fore-teeth in the lower jaw; three tusks on each side above, and two below; four grinders on each side above, and three below: The voice of this animal resembles the chirp of a Grasshopper. The female has ten teats, and brings forth nine young ones in the spring.

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4. Javan Shrew.—6. *Sorex murinus*. 4.

The tail is of a middle length; the body is dusky; the legs, feet, and tail, are ash coloured.

Murine Shrew. Penn. hist. of quad. n. 340.

Inhabits the island of Java.—Is about the size of a common Mouse; has a long slender nose, channelled underneath, and garnished with long ash coloured whiskers; the ears are rounded, and almost naked; each jaw has two sharp, parallel fore-teeth; all the feet have five toes, armed with claws; the tail is rather shorter than the body, and less hairy.

415

5. Fetid Shrew.—7. *Sorex araneus*. 5.

The tail is of a middle length; the upper parts of the body are brownish red, and the under parts dirty white. Schreber, iii. 573. t. cxi.

Mus araneus, Mufaraneus, Shrew-mouse, Shrew, or Hardy Shrew. Raj. quad. 239. Gefn. quad. 747. Aldrov. dig. 441. fig. p. 442. Jonst. quad. 168. t. 66. Agric. An. Subt. 485. Klein. quad. 57. Kramer, Aust. 317. Briff. quad. 126.—Nabbinus. Faun. Suec. 24.—Mufaraigne, or Shrew-mouse. Sm. Buff. iv. 303. pl. lxxxvi. fig. 1. BRIT. ZOOL. i. 112.—Foetid Shrew. Penn. hist. of quad. n. 341.

Inhabits the whole of Europe, and the northern parts of Asia, to Kamtschatka, and as far south as the Caspian.—Lives in old walls, heaps of stones, and holes in the earth near villages, in dung-hills, hay-ricks, stables, barns, necessary-houses, and other out-houses, especially frequenting damp places, and pools of water; feeds on corn, insects, and almost any filthy thing, being often observed rooting in ordure with its nose, like a Hog; it has a very disagreeable odour, of a musky kind, so that, though cats destroy great numbers of them, they never eat their bodies. This animal is about two and a half inches, never exceeding three, in length, the tail one and a half, and the whole body scarcely exceeds three drams in weight; it runs more slowly than the common Mouse; the teeth resemble those of the Water Shrew, already described; the voice is a shrill whistling: In spring and summer,

summer, the female produces five or six young at a birth. Great numbers of this species are found dead in the paths every August, without any evident cause. The ears are short, and rounded; the eyes small, and almost hid in the fur; the nose long and slender, the upper jaw being much longer than the under.

416

6. Labradore Shrew.—*Sorex arcticus*.

The head and upper parts of the body are dusky, and the sides of a brownish rust colour.

Penn. Arct. zool. n. 67.

Inhabits Hudfon's Bay and Labradore.—The nose is very long and slender; the upper jaw extending far beyond the lower; the eyes are very small, and almost hid in the fur; the ears are short. Mr Pennant supposes that this species, or variety of the Fetid Shrew, is likewise found in Carolina, as Mr Lawson, in his history of that country, p. 125. mentions a Mouse found there which poisons cats.

417

β. Grey Labradore Shrew.—*Sorex arcticus cinereus*.

Of a dusky grey colour on the upper, and yellowish white on the under parts of the body. Penn. Arct. zool. i. p. 139.

Two specimens of this variety were sent by Mr Graham from Hudfon's Bay at the same time with the other variety; these Grey Shrews were both smaller than the Fetid Shrew of Britain, one being only two inches, and the other two and a quarter, in length. Mr Pennant thinks that both of these, and the dusky species, are only varieties of the Fetid Shrew.

418

7. Surinam Shrew.—8. *Sorex surinamensis*. 8.

The tail is scarce half the length of the body; the body is chestnut coloured on the upper, and below of a pale yellowish ash colour.

Inhabits Surinam.—In size, shape of the head and snout, teeth, eyes, and feet, this species resembles the Water Shrew; but the ears are like those of the Fetid Shrew: The tail is covered with very short, smooth, close set hair, cinereous on the upper, and whitish on the under side; the muzzle, round the mouth, is white.

419

8. Timid Shrew.—9. *Sorex pusillus*. 9.

The tail is short, and has the hair partly shed towards the sides; the ears are rounded.

Erxleb. mam. 122. S. G. Gmelin, It. iii. 499. t. 75. f. 1.

Inhabits the deserts of Persia.—This animal lives in holes, which it burrows in the ground: The body is about three inches and a half in length, of a dark grey on the upper, and ash coloured on the lower parts; the teeth are like those of the Fetid Shrew, but in other respects it resembles the Surinam species, though considerably larger.

420

9. Brazilian Shrew.—10. *Sorex brasiliensis*. 10.

Of a dark colour, with three broad stripes of black along the back. Erxleb. mam. 127.

Mufaraneus

Musaraneus murinus, or Moufe-like Shrew. Marcgr. Bras. 229.—Brazilian Shrew. Sm. Buff. viii. 273. Penn. hist. of quad. n. 339.

Inhabits Brasil.—Is about five inches long, and the tail not quite two inches; the scrotum is pendulous; the muzzle is pointed, and the teeth very sharp. This animal is by no means afraid of cats; with which it will even play.

421

10. Pigmy Shrew.—*Sorex exilis*. 11.

The tail is very slender near the root, then suddenly grows remarkably thick and round, and again tapers to the end. Penn. hist. of quad. n. 344.

Sorex exilis, of an exceedingly small size, and having a very thick round tail. Syft. nat. ed. Gmel. i. p. 115. n. 11.

Inhabits Siberia about and between the rivers Oby and Jenifei.—This is the smallest quadruped hitherto known, scarcely exceeding half a dram, or the sixteenth part of an ounce, in weight: The nose is very long and slender; the general shape and colour resemble the Fetid species, but of a paler brown red. An account of this animal was communicated by Dr Pallas to Mr Pennant; it is noticed by Dr Gmelin, but without quoting any authority.

422

11. Blue Shrew.—*Sorex caeruleus*.

The tail is of a middle length; the upper parts of the body are of a pale blue colour, and the belly lighter, with white legs and feet.

Mus pilorides? Pallas, nov. sp. fasc. i. 91.—*Mus albus zeylonicus*, or White Rat from Ceylon? Briff. quad. 122.—Perfuming Shrew. Penn. hist. of quad. n. 337. Lev. Mus.

Inhabits Java, and the other islands of the East Indies.—This animal feeds on rice; it is near eight inches long, and the tail three and a half; the nose is long and slender, the upper jaw being greatly longer than the lower; the upper fore-teeth are short, the under ones long, slender, and crooked inwards; the muzzle is garnished with long white whiskers; the eyes are small; the ears are broad, round, naked, and transparent; the fur is short, and close set; the whole body has so strong an odour of musk as to perfume every thing it runs over; and is even said to infect the wine in a well corked bottle; cats will not attack it.

423

12. Mexican Shrew.—*Sorex mexicanus*.

The tail is short; the fore feet have only three toes, and the hind feet four.

Mexican Shrew. Penn. hist. of quad. n. 338.—Tucan. Fernand. Nov. Hisp. cap. 24. p. 9.—Tucan or Mexican Shrew. Sm. Buff. viii. 271.

Inhabits Mexico and New Spain.—Is about nine inches long from the tip of the nose to the origin of the tail; the nose is sharp; the ears are small and rounded; the eyes are very small, and hid in the fur; it has two long fore-teeth in each jaw; the body is thick, fat, fleshy, and of a reddish yellow colour; the legs are very short, so that the belly trails on the ground; the toes are all armed with

with long crooked claws: This animal burrows in the ground, and makes such numbers of holes that travellers can scarce tread with safety; it feeds on roots and seeds; and the flesh is reckoned very good to eat.—The Count de Buffon, on the authority of Fernandez, says, that it is so stupid as not to recognise its hole after having quitted it, and on this account it is obliged continually to dig new holes; but this is impossible, as the female would never be able to discover the retreat of her young ones.—T.

424

13. White-footed Shrew.—*Sorex albipes*.

The tail is slender and hairy; the head and upper parts of the body are of a dusky ash colour; the feet, belly, and teeth white. Penn. hist. of quad. n. 345.

425

14. Square-tailed Shrew.—*Sorex quadricaudatus*.

The tail inclines to a square form; the head and upper parts of the body are of a dusky ash colour; the belly paler; and the fore-teeth brown. Penn. hist. of quad. n. 346.

426

15. Carinated Shrew.—*Sorex liricaudatus*.

The tail is taper, slender, and ridged underneath; the head and upper parts of the body are of a dusky ash colour, having a white spot behind each eye; the belly is whitish; and the fore-teeth are brown. Penn. hist. of quad. n. 347.

427

16. Uniform Shrew.—*Sorex unicolor*.

The tail is narrowed or compressed at the base; the whole body is of an uniform dusky ash colour. Penn. hist. of quad. n. 348.

These last four animals are ranked, by Mr Pennant, as distinct species of this genus, though I am apt to suspect that they are only varieties of the Common Fetid Shrew, or *Sorex Araneus*. They were all discovered, by Professor Herman, in the neighbourhood of Strasburg; but, as Mr Pennant does not quote the book, it is impossible to ascertain their proper place in system without farther information.—T.

XXII. URCHIN.—21. *ERINACEUS*. 25.

Has two fore-teeth in each jaw; those of the upper jaw being distant from each other, while the lower stand close together: On each side there are five tusks in the upper jaw, and three on each side in the lower: On each side of both jaws are four grinders. The back and sides are covered with strong sharp pointed spines. All the feet have five toes.

1. Common Urchin.—1. *Erinaceus europæus*. 1.

Has short, broad, rounded ears; the nostrils are bordered on each side with a loose flap.

Faun. Suec. 8. n. 22. Schreber, iii. 580. t. clxii.

Erinaceus auriculis erectis, or Urchin, with erected ears. Brissl. quad. 128.—*Erinaceus parvus nostras*, or Small domestic Urchin. Seba, Mus. i. 78. t. 49. f. 1. 2.—*Echinus terrestris*, or Land Urchin. Gefn. quad. 368. Aldrov. dig. 459. Jonst. quad. 171. t. 68.—*Echinus terrestris*, *Erinaceus terrestris*, Urchin, or Hedge-hog. Raj. quad. 231.—Igel. Knorr, del. ii. t. H. f. 3.—Herisson, or Hedge-hog. Sm. Buff. iv. 300. pl. lxxxv.—Sora. Flacourt, voy. Madagaf. 152.—Common Hedge-hog. Penn. hist. of quad. n. 355. t. xlviii. fig. 3. BRIT. ZOOL. i. 106. Arct. zool. i. 142. B.

Inhabits the whole of Europe, except the cold regions of the north; the southern parts of Siberia, as far as the Kirgisian deserts and the Jaic, and in Madagascar.—Resides in thickets, hedges, and at the bottom of dry ditches which are covered with bushes, where it builds a nest of moss, grass, or leaves; it hibernates under hedges or thick bushes, rolled up in a globular form; goes abroad only in the night, and lives on frogs, toads, worms, beetles, may-bugs, grasshoppers, crabs, snails, fruits, roots, small birds, and carrion; digs holes in mossy places; swims very readily; when terrified or irritated, it rolls itself into a round form, presenting the points of its spines on every side as a defence, and ejecting its urine, which has a disgusting smell; by these means it is invulnerable to dogs, polecats, martins, ferrets, or birds of prey; it screams when the feet are pinched, and has a musky odour. By the Calmucks, this animal is domesticated, and kept in their huts instead of cats. The flesh is not eatable. The Hedge-hog lives in pairs which propagate in spring, face to face, on account of the prickles; and the female, which has three teats on the breast and two on the belly, brings forth from three to five young ones about the beginning of summer; these are at first entirely white, and the buds of the spines just appear through the skin. This species is about ten inches long; the muzzle is long and sharp, having the upper lip divided, and the nostrils bordered on each side with a loose flap of skin; the ears are broad, short, and hairy; the eyes are small, and of a black colour; the prepuce of the male is long and pendulous; the upper parts of the face, the sides, neck, and rump, are covered with yellowish ash coloured hair, mixed with white; the spines are of a whitish colour at both ends, with a black bar in the middle, and are interspersed with tawny hairs; the tail is about an inch long, and is covered with dark hair; the legs are short, naked, and dusky, having five toes on each foot, the inner toe being smaller and farther back than the rest, and all are armed with weak claws.

2. Guiana Urchin.—2. *Erinaceus inauris*. 2.

Has no external ears. Brissl. quad. 184.

Erinaceus americanus albus, or White American Urchin. Seba, Mus. i. 78. t. 49. f. B.—American Hedge-hog. Bancroft, Guian. 144.—Guiana Hedge-hog. Penn. hist. of quad. n. 358.

Inhabits Guiana, and probably in other parts of South America.—Instead of external ears, this animal has only orifices to the auditory canals; the head is thick and short; the back and sides are covered with short ash coloured spines, tinged with yellow; the belly, legs, tail, and face, are covered with soft whitish hair, which becomes chestnut coloured over the eyes; the hinder part and sides of the head are deeper chestnut; the tail is short; the claws are long and crooked; and the whole length of the animal, from the point of the nose to the origin of the tail, is about eight inches.

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3. Malacca Urchin.—3. *Erinaceus malaccensis*. 3.

Has pendulous ears. Briff. quad. 183.

Hystrix brachiura, or Short-tailed Porcupine. Syft. nat. ed. x. i. p. 57.—*Porcus aculeatus*, f. *Hystrix malaccensis*, Malacca Hedge-hog, or Pocupine. Seba, Mus. i. 81. t. 51. f. 1.

Inhabits Asia.—From this species is procured the stone, called *Piedra-del porco*, formerly held in high estimation *. Dr Gmelin seems uncertain whether this animal should be considered as a species of this or of the Porcupine genus; but is disposed, on the authority of Briffon, to rank it in this place.

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4. Siberian Urchin.—4. *Erinaceus auritus*. 4.

Has long oval ears, and the nostrils are crested at the edges.

Erinaceus auritus, or Long-eared Urchin. Pallas, nov. com. Petrop. xiv. 573. t. 21. f. 4. S. G. Gmelin, D°. xiv. 519. t. 16. Schreber, iii. 582. t. clxiii.—Siberian Hedge-hog. Penn. hist. of quad. n. 356.

Inhabits Eastern Asiatic Russia, at the lower parts of the Volga and Ural rivers, and beyond lake Baikal.—In the former of these districts this species is considerably smaller than the European Urchin; but those beyond lake Baikal are often much larger: The upper jaw is long and slender, having four rows of whiskers on the nose; the ears are very large, open, and naked, having soft whitish hair on the inside, and being edged with brown; the tail is shorter than in the European species, is of a taper form, thick at the origin, annulated, almost naked, and having only a few very soft hairs; the upper part of the body is covered with slender brown spines, having a white ring on each near the base, and another near the point; the limbs are long and slender, and these and the belly are covered with a very fine, soft, white fur. The female has sometimes two litters in the year, and brings forth as far as seven at a birth. This species hibernates, during winter, in holes only a few inches below the surface of the ground; it feeds on insects, even eating cantharides with impunity; it grows very fat, rolls itself up when frightened, and has all the manners of the European species.

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5. Tendrac.—5. *Erinaceus setosus*. 5.

Has spines only on the head, neck, tail, and withers. Sm. Buff. vii. 86. pl. ccix.

Erinaceus, having shortish ears; the hind part of the head tolerably covered; the tail very short and covered with spines. Syft. nat. ed. Gmel. i. 117. n. 5. Schreber, iii. 583. t. clxiv.—Asiatic Hedge-hog. Penn. hist. of quad. n. 357.—Small Madagascar Tendrac. Sonneret, It. ii. 146. t. 93.

Inhabits India and Madagascar.—This species is considerably smaller than the European Urchin, being scarcely six inches long: The muzzle is very long, and is garnished with long whiskers; it has no spines but on the head, neck, and withers, the rest of the body being covered with coarse hair, like hogs bristles, of a whitish colour; the tail is very short, and is covered with spines; the spines are white, with a rust coloured ring in the middle; the legs are very short, and all the feet have five toes.

This

* Probably a kind of Bezoar.—T.

This species is about the size of a Common Mole; it wallows in the mire, and grunts like a Hog; frequents fresh and salt water, burrows in the ground, and lies torpid, during six months, in its hole; in which time the hair falls off, and is renewed when the animal goes about again. It is generally very fat, and, though the flesh is reedy and insipid, it is eaten by the natives.

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6. Tanrec.—6. *Erinaceus ecaudatus*. 6.

Has no tail; the muzzle is very long and slender; the back and sides are covered with spines. Schreber, iii. 584. t. clxv. clxv *.

Tanrec. Sm. Buff. vii. 86. pl. ccx.—Asiatic Hedge-hog. Penn. hist. of quad. n. 357.

Inhabits India and Madagascar.—This species is considerably larger than the former, or Tendrac, being nearly as large as a Rabbit, when full grown. It differs likewise from the former, in having the top of the head, the neck, back, rump, and sides entirely covered with short spines, of a yellowish colour, with a black bar in the middle; the belly is covered with yellowish hair; the legs and feet are tawny, having five toes on each foot; on the muzzle, and behind the ears, are several very long black whiskers; the ears are rounded, and somewhat longer than those of the Tendrac.—In voice, manners, and mode of life, this species agrees with the preceding; and both are considered by Mr Pennant as being only varieties of the same species, notwithstanding the very remarkable difference in their size and description. It is necessary to remark, that the engraver of Buffon's plates, in the Edinburgh edition, has reversed the names.—T.

IV. G L I R E S.

Have no tusks in either jaw; in both jaws there are two fore-teeth standing close together, but at a great distance from the grinders.

XXIII. PORCUPINE.—22. *HYSTRIX* 21.

The fore-teeth seem obliquely cut off at the ends: The two jaws have eight grinders. The fore paws have each four, and the hind feet five, toes. The body is covered with long spines, intermixed with hair.

1. Crested Porcupine.—1. *Hystrix cristata*. 1.

The top of the head is furnished with a long reclined crest of stiff bristles. Brist. quad. 125.

Hystrix cristata, having four toes on each fore foot, and five on the hind feet, with a crest on the head, and a short tail. S. G. Gmel. It. iii. 107. t. 21. Schreber, iv. 599. t. lxvii. Syst. nat. ed. Gmel. i. p. 118. n. 1.—*Hystrix cristata orientalis*, or Crested oriental Porcupine. Seba, Mus. i. 79. t. 50. f. 1. Gefn. quad. 563. Aldrov. dig. 471. fig. p. 474. Jonst. quad. 163. t. 68. Raj. quad. 206.—*Acanthion cristatus*. Klein, quad. 66.—*Stachelschwein*. Ridinger, kl. thierr. t. 90. Knorr, delic. ii. t. K. ii. f. 2.—Porcupine. Sm. Buff. vii. 69. pl. ccv. cevi.—Crested Porcupine. Penn. hist. of quad. n. 253.

Inhabits the southern parts of Asia, in Africa, Spain, and Italy; is found in the Sand hills to the south-west of the Caspian, in Southern Tartary, Persia, and Palestine.—The Porcupine dwells in large burrows, or holes, of its own digging, which have a single entrance, and are divided into many apartments; it goes about during night, in search of fruits, roots, and herbs, and is particularly fond of the box-wood shrub; when threatened by an enemy, it rolls itself into a round form, presenting its quills, or spines, on every side as a defence: The female brings from two to four young ones at a birth in spring; and these are very easily tamed. This is a harmless animal, except to gardens, where it makes great devastation on pot-herbs; in a domestic state, when angry, it runs its head into a corner, erects its spines against any assailant, and makes a grunting or snorting noise.

There are some diversities between the Porcupines of Italy and those of Asia and Africa; the quills of the former are considerably shorter, and the crest much smaller: These differences are particularly noticed

noticed in the plates of Buffon's natural history, though not in the text, so that they may fairly be taken as varieties.

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α. Italian Porcupine.—H. cristata europaea.

Has shorter spines, and a smaller crest. Sm. Buff. vii. pl. ccv.

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β. Indian Porcupine.—H. cristata indica.

Has long spines, and an ample crest. Sm. Buff. vii. pl. ccvi.

The Porcupine is sometimes above two feet long; and the tail, which is of a conical form, and covered with quills, is four inches in length; the head is long and compressed laterally, having a short, blunt, nose; the upper lip is deeply divided as far as the nostrils; the eyes are small and black; the ears short, broad, oval, and somewhat like those of mankind; the legs are short and thick; the body is covered with long and strong spines or quills, which are very smooth, sharp pointed, and variegated with black and white rings; these, and the long bristles on the back of the head, the animal is able to erect and recline at pleasure, by means of a *paniculus carnosus*, or subcutaneous muscular expansion; between the spines are a few cinereous or ash coloured hairs; and the head, belly, and legs, are covered with strong bristles of a dusky colour, intermixed with soft hairs. The gall bladder of this animal frequently contains a species of bezoar, formerly much valued. The flesh of the Porcupine is sold in the markets of Italy, and is tolerably good.

2. Brazilian Porcupine.—2. Hystrix prehensilis. 2.

The tail is long, naked underneath at the end, and prehensile; the hind feet have only four toes; it has no hair among the spines. Schreber, iv. 603. t. clxviii.

Hystrix americanus, or American Porcupine, named Cuandu, by the Brazilians, and Ourico cachieno; by the Portuguese. Marcgr. Bras. 233. Jonst. quad. 60. Raj. quad. 208.—Brazilian Porcupine. Penn. hist. of quad. n. 255. pl. xli. fig. 1.

Of this species two varieties are mentioned in authors.

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α. Larger Brazilian Porcupine.—Hystrix preh. major.

Having a longer tail, and shorter spines. Barrere Fr. equin. 153.

Larger Cuandu. Piso, Ind. 324. f. p. 325.—Larger American Porcupine. Briff. quad. 131.

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β. Smaller Brazilian Porcupine.—Hystrix preh. minor.

Of a smaller size, and having a white head. Barrere, Fr. equin. 153.

Cuandu. Piso, Ind. 99.—American Porcupine, having a long slender tail, the under half of which, at the extremity, is destitute of spines. Briff. quad. 129.

Inhabits Mexico and Brasil.—The nose is short and blunt, having long white whiskers, and a bed of small spines on the upper lip under the nose. The top and sides of the head, back, and sides, the base of the tail, and outsides of the legs and thighs are covered with very sharp spines, of a white colour, barred with black at the ends; these are near three inches long at the hinder part of the back and base of the tail; they adhere closely to the skin, which has no hair intermixed; as they approach the belly, they become shorter and weaker, and on the breast and belly are converted into dark brown bristles: The feet are of an ash colour, having each four long toes, armed with strong black claws, and the hind feet have each a large protuberance instead of a thumb, or inner, fifth toe; the tail is eighteen inches long, slender, and taper; the last ten inches is almost naked, having only a few hairs, and is prehensile; the body and head of the larger variety, from which the description here given was taken by Mr Pennant, is about the same length with the tail; the smaller variety is less known; all that is said of it being that it is smaller, and has a white head.

Buffon confounds these two varieties with the following species, but mentions, that in Guiana there are two species, probably the two varieties just described, one of which weighs from twelve to fifteen French pounds, and the smaller only about six: They are eaten by the Negroes, who prefer their flesh to that of the Paca, or Spotted Cavy; they climb trees slowly, and assist themselves with their tails, living on fruits and small birds; bite sometimes, but not dangerously; sleep during the day; make a noise with their nostrils as if out of breath, and grunt like a Sow; roll themselves up into a ball when frightened; and may be tamed.

3. Mexican Porcupine.—*Hystrix mexicana*.

The tail is long, and prehensile at the end; the hind feet have only four toes; the spines are intermixed, and almost hid, with downy hair, and very long bristles. Penn. hist. of quad. n. 256. Syst. nat. ed. Gmel. i. 119. n. 2. 7.

Hoitztlacuatzin, Tlacuatzin spinosus, Spinous Opossum, *Hystrix novae hispaniae*, or Porcupine of New-Spain. Hernand. mex. 322. Nieremb. hist. nat. 154.—Porcupine, with a short thick tail, and covered with spines which just appear through the fur. Briss. quad. 127.—Coendou. Sm. Buff. vii. 76. pl. ccvii.

Inhabits the mountains of Mexico.—This animal is confounded by the Count de Buffon with the two varieties of the former species, which, it would appear, he had never seen; it is likewise by Dr Gmelin made a third variety of the former, and, by mistake, this from Buffon is quoted as the same with the Lesser Brazilian Porcupine; but, with great propriety, Mr Pennant, who had seen a specimen of the greater variety of the former species, has separated this, which, on his authority, is placed here as a distinct species. The Mexican Porcupine is of a dusky colour, and the whole body is covered with downy hair and very long bristles; the spines are varied with white and yellow bars, are three inches long, very slender, and scarcely apparent, except on the lower part of the tail, which is thicker and shorter than that of the former species, and from the middle to the extremity is free from spines. The head and body are about eighteen inches long, and the tail nine; but the specimen from which Buffon describes was mutilated. This species lives on fruits during summer, and is easily tamed.

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4. Canadian Porcupine.—3. *Hystrix dorsata*. 3.

The tail is of a middle length, and not prehensile; the hind feet have five toes; the whole body is covered with long soft fur, intermixed with spines on the upper part of the head, body, and tail. Penn. hist. of quad. n. 257. Arct. zool. n. 42.

Hystrix dorsata, having four toes on the fore and five on the hind feet, with spines only on the back. Syst. nat. ed. Gmel. i. 119. n. 3. Schreber, iv. 605. t. clxix.—*Hystrix hudsonius*, or Hudson's Bay Porcupine, having the spines hid under the hair, with a short thick tail. Briff. quad. 128.—Hairy American Porcupine. Catesby, Carol. app. 30.—*Cavia hudsonis*, or Hudson's Bay Cavy. Klein, quad. 51.—Porcupine from Hudson's Bay. Edw. av. i. 52. t. 52. Ellis, voy. 42. Clark, voy. i. 177. 191.—Urfon, or Canada Porcupine. Sm. Buff. vii. 83. pl. ccviii.

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β. White Canadian Porcupine.—*H. dorsata alba*.

Of a uniform white colour. Penn. hist. of quad. n. 257. Lev. Mus.

Inhabits North America, as far north as the country about Hudson's Bay, and Newfoundland.—Digs holes under the roots of trees, and even ascends them, living on their fruits and bark, especially on the juniper shrub; it laps water like a Dog, and in winter eats snow as drink: The whole body, head, legs, and upper part of the tail, are covered with fur of a dark rusty brown colour, consisting of one series of long soft hairs, and a lower soft coat of down, like the Beaver, interspersed with some long, stiff, straggling hairs, tipped with dirty white; intermixed with this, and entirely hid in it, are numbers of strong sharp quills, or spines, on the upper part of the head, back, and tail, near three inches long on the back, shorter towards the head and sides; these are so slightly attached to the skin, that, by stroking the animal, they come out sticking to the hands. This animal is nearly as big as a Hare; the tail is about six inches long, and white underneath; the ears are short, and hid in the fur.

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5. Long-tailed Porcupine.—4. *Hystrix macroura*. 4.

Has five toes on all the feet, and a very long tail with jointed spines. Schreber, iv. 607. t. clxx.

Hystrix orientalis, or Oriental Porcupine, having a very long tail, tufted at the end, and universally covered with spines. Briff. quad. 131.—*Porcus aculeatus silvestris*, *Hystrix orientalis singularis*, Wild Hedge-hog, or Singular Oriental Porcupine. Seba, Mus. i. 84. t. 52. f. 1. Bont. Jav. 54.—Long-tailed Porcupine. Penn. hist. of quad. n. 254.

Inhabits the islands of the Indian Ocean.—The body is short and strongly made, and is covered with long stiff hairs, as sharp as needles, which reflect various colours; the tail, which is as long as the body, and tapers to a very slender point, is tufted at the extremity with a bundle of long bristles, of a transparent silvery colour, composed of joints rising one above the other like grains of rice. The feet are all divided into five toes, one of which, serving as a thumb, turns backwards to assist in climbing trees. The ears are short and naked; the eyes are large and bright.

β. Brawny Porcupine.—*Hystrix torosa*.

Dr Gmelin supposes the animal described, under this name by Merrem, in Leske's *Magaz. zur Naturk. und Oekonomie*, 1786, P. ii. 197. 198. may belong to the Long-tailed species, as a variety; but, though he quotes that author, he does not give any description of the animal.

XXIV. C A V Y.—23. C A V I A.

Has two wedge-like cutting teeth in each jaw; eight grinders in both jaws. The fore feet have four or five toes; the hind feet three, four, or five, each. The tail is either very short, or entirely wanting. The collar bones, or clavicles, are wanting.

The animals of this genus seem to hold a middle place between the Murine quadrupeds and the Rabbit genus; they have a slow, and mostly a kind of leaping, pace; they never climb trees; they live on vegetable food; and dwell in hollow trees, or in burrows which they dig in the earth.

1. Paca.—1. *Cavia Paca*. 1.

Has hardly any tail; all the feet have five toes; the sides are marked with rows of grey or pale yellow spots. Erxleb. mam. 356. Schreber, iv. 609. t. clxxi.

Mus Paca, or Paca, with a very short tail. *Syst. nat. ed. xii. i. 81. n. 6.*—Cuniculus Paca, or Paca, having external ears and a short tail, covered with coarse dark brown hair, and marked on the sides with rows of yellowish white spots. *Briff. quad. 144. n. 4.* *Gronov. zöoph. i. 4. n. 15.*—Pak, Cuniculus minor palustris, or Lesser Marsh Rabbit, marked with white streaks. *Barrere, Fr. equin. 152.*—Mus brasiliensis major, or Larger Brazilian Mouse, having the voice and hair like a pig, called Paca by the natives. *Raj. quad. 226.*—Paca. *Marcgr. Bras. 224.* *Piso, Ind. 201.* *Jonst. quad. t. 63.* *Sm. Buff. v. 392. pl. clvii.*—Laubba. *Bancr. Guian. 76.*—Spotted Cavy. *Penn. hist. of quad. n. 235.*—Hog-rabbit. *Wafer's voy. in Dampier. iii. 401.*

Inhabits Brasil, Guiana, and probably in all the warmer parts of America.—Lives in fenny places near rivers, burrowing in the ground, and keeping its hole exceedingly clean, to which it has always three distinct outlets: It grows very fat, and is esteemed a great delicacy. The body and head measure about two feet in length; the tail is like a small button, and so extremely short, as to be hardly apparent, measuring only two or three twelfth parts of an inch; the head is large and thick, with a lengthened thick nose, which is black at the tip; the upper jaw is considerably longer than the lower; the mouth is very small, and the upper lip is divided; the nostrils are very large, and the muzzle is garnished with long whiskers; the upper jaw has at each side a fold of the skin resembling a mouth; the ears are short, broad, roundish, and covered with a fine and almost imperceptible down; the eyes are large, prominent, and brownish; the eye-brows, temples, and throat, are garnished with hairy warts; the two cutting teeth in each jaw are very long, of great strength, and of a saffron yellow colour.

lour; the tongue is narrow, thick, and somewhat rough; the hind legs are longer than the fore, and rest on the sole of the foot as far as the heel; all the feet have five toes armed with claws, the inner claw being very short. The female has two teats situated between the hind thighs; and has only a single young one at each litter. The whole upper parts of the body are covered with short, coarse, thinly scattered hairs, of a dusky, or dark brown, colour, which is deeper on the back; the sides are marked with five rows of white, grey, or yellowish spots, almost running into each other; the belly, breast, throat, and insides of the legs are of a dirty white.

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β. White Paca.—*C. Paca alba*.

Entirely of a White colour. De Laet. 484. Penn. hist. of quad. p. 364.

This variety inhabits the environs of the river St Francis in South America; and, except in colour, resembles in every thing the animal described above.

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2. Akouchy.—2. *Cavia Acuschy*. 2.

Has a short tail; the upper parts of the body are of an olive colour, the under parts whitish. Erxleb. mam. 354. Schreber, iv. 612. t. clxxi. B.

Akouchy, *Cuniculus olivaceus minor*, or Lesser Rabbit, of an olive colour. Barrere, Fr. equin. 153. Des Marchais, iii. 303. Sm. Buff. v. 61. and viii. 269. pl. ccxcii.—Olive Cavy. Penn. hist. of quad. n. 237.

Inhabits Guiana, Cayenne, and Brasil.—Is about the size of a half grown Rabbit, is easily tamed, and is reckoned very delicate food. The female brings one, sometimes two, at a litter. This species resembles the following, or Agouti, but is uniformly smaller, has a tail of some length, and is of a different colour. It inhabits the woods, living on fruits; abhors water, and sometimes, though rarely, makes a cry like that of the Restless Cavy.

3. Agouti.—3. *Cavia Aguti*. 3.

Has a very short tail; the upper parts of the body are of a brown colour, mixed with red and black, the rump of a bright orange, and the belly yellowish. Erxleb. mam. 353. Schreber, iv. 613. t. clxxii.

Of this species there are three varieties mentioned in authors, viz.

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α. Lesser Agouti.—*C. Aguti cunicularis*.

Has a very short tail, four toes before, three behind, and a yellowish belly. Syft. nat. ed. xii. i. 80. n. 2.

Cuniculus Aguti, having external ears and a tail, and covered with coarse fur of a mixed reddish and dark brown colour. Briff. quad. 143. Gronoph. zooph. i. 4. n. 14.—Small Indian Coney, or Larger Mouse, of a brown ash colour, with a very short tail. Brown, Jamaic. 484.—*Mus sylvestris americanus*, or American wild Mouse, as large as a rabbit, and having the hair and voice of

a pig. Raj. quad. 226.—Cuniculus vulgatissimus, or Commonest Rabbit, called Aguti. Barrere, Fr. equin. 153.—Aguti, Acuti, or Agoutis. Marcgr. Bras. 224. Piso, Bras. 102. Jonst. quad. t. 63. De Laet, 484. Rochefort, Antill. i. 287.—Long-nosed Rabbit. Wafer, in Dampier's voy. iii. 401.—Long-nosed Cavy. Penn. hist. of quad. n. 236.—Agouti. Sm. Buff. v. 58. pl. cvi.

Inhabits Brasil, Guiana, Cayenne, and other parts of South America, and in the West Indian islands.—This animal is about the size of a Rabbit.

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β . Larger Agouti.—3. β . *C. Aguti leporina*.

Has a very short tail; the upper parts of the body are reddish, and the under parts white. Erxleb. mam. 355.

Mus leporinus, or Hare-like Mouse, with a short tail; having four toes on the fore, and three on the hind, legs; the belly white. Syft. nat. ed. xii. i. 80. n. 3.—Cuniculus javensis, or Javan Coney, having external ears, and a short tail; of a reddish colour mixed with dark brown. Briff. quad. 142.—Java Hare. Catesby, Carol. app. t. 18.—Javan Cavy. Penn. hist. of quad. n. 238.

Inhabits Surinam and the hotter parts of South America.—This variety is as large as a Hare.

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γ . American Agouti.—3. γ . *C. Aguti americana*.

Has a very short tail, and is clothed with coarse reddish fur.

Cuniculus americanus, or American Coney, having external ears and a short tail, covered with coarse reddish hair. Briff. quad. 144. Seba, Mus. i. 67. t. 41. f. 2.

These three varieties inhabit South America and the West India islands.—They dwell in hollow trees, or burrow in the ground; they search for their food, which is entirely vegetable, during the day, and carry it home with them to their dwellings; when feeding they sit up on their hind legs, and carry their food with the fore paws to the mouth; their pace consists of leaps; they grow very fat, and are very good eating, their flesh being white and savoury like that of a Rabbit; they breed frequently in the same year, the female bringing three, four, or five young ones at a birth. The toes are connected at the root by a short membrane, being what is called Sub-palmated; the tail is very short, almost naked, and of a conical form.

The first variety, of which the distinguishing description is given in the character of the species, is about the size of a Rabbit; the nose is long, with a divided upper lip; short, broad, rounded, ears; and black eyes; the legs are slender, almost naked, and of a black colour. The second variety has a small slender head, with prominent, naked, ears, which are rounded at the extremity. In the first, the belly is of a yellow colour, and, in the second, it is white; in both, the hinder parts are larger than the fore, and the legs are long. The third variety, which is here admitted on the authority of Gmelin, and the authors he has quoted, is either very little known, or is the same with the first variety. They all grunt like pigs, are very voracious, and, when fat, their flesh is white, like that of a Rabbit, but dry. What food they cannot immediately consume they hoard in their retreats, and eat at their leisure. Their pace is hopping, like that of a Hare or Rabbit; they beat the ground, like them, with their feet, when angry; and take shelter, when pursued, in their holes, or in hollow trees.

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4. *Aperea*.—4. *Cavia Aperea*. 4.

Has no tail; the upper parts of the body are of a reddish ash colour, and the under parts white. Erxleb. mam. 348.

Cuniculus brasiliensis, or Brazilian Coney, having external ears and no tail, of a reddish ash colour. Brieff. quad. 149. n. 8.—*Aperea*, of the Brazilians, called Veld Ratte, d'Ratte, or Bosch Ratte, by the Dutch. Marcgr. Bras. 223. Piso, Bras. 103. Raj. quad. 206. Jonst. quad. t. 63.—*Aperea*. Sm. Buff. viii. 274.—Cuniculus indicus femina, or Female Indian Coney. Aldrov. dig. 393.

Inhabits Brasil. - Lives in holes of the rocks, from which it is driven out, and taken, by means of little dogs: The ears are short; the fore paws have four, and the hind feet only three, toes; the colour of the back resembles that of our common Hares, and the animal runs in the same manner; the upper lip is divided: The flesh is very good eating, and resembles that of the Rabbit, but is superior in flavour. The head and body are about a foot long; the fore feet are black, and naked, and the toes have short small claws; of the three toes on the hind feet, the middle one is longer than the rest.

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β. Black *Aperea*.—*Cav. Aperea nigra*.

Of a black colour mottled with tawny.

Rock Cavy. Penn. hist. of quad. n. 233.

This animal, as described by Mr Pennant, is exactly similar, in every respect, except in colour, to the former; being black, mottled with tawny, on the back; the belly and throat white.

The Count de Buffon quotes Oviedo, Charlevoix, and Perrier de Montfrazier, for an animal, which he thinks is the same with the *Aperea*, called *Cori* by these writers: It resembles the Rabbit and the Mole, has small ears, carried in a flatly reclined position, and no tail. Of this animal there are many varieties, with respect to colour: Some are entirely white; others entirely black; some totally red; some spotted with black and white; and others spotted with red and white. They eat herbage, and their flesh resembles that of our best Rabbits in taste and flavour; they are easily tamed, and never defile their place of abode. These animals, whether mere varieties of the species in question, or distinct species of the Cavy genus, are found in various parts of the West Indian islands, and on the continent of America. Hist. de St Domingue, par le P. Charlev. i. 35. Hist. des voy. par Dupèrtier de Montfrazier, 343. Garcilasso, Hist. des Incas. ii. 252.

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5. *Cobaya*.—5. *Cavia Cobaya*. 5.

Has no tail; the whole body is white, usually variegated with irregular orange and black blotches. Schreber, iv. 617. t. clxxiii.

Mus Porcellus, Pig-like Mouse, or Guinea Pig, having four toes on the fore and three on the hind feet; with no tail. Syst. nat. ed. xii. 79. n. 1. Mus. ad. Fr. 9. Amoen. acad. iv. 190. t. 2. It. Westgoth. 224.—Cuniculus indicus ecaudatus, or Taillefs Indian Coney, having external ears, of a white or red colour, or variegated with both. Brieff. quad. 147. n. 7. Gronov. zooph. i. 4. n. 16. Nieremb. hist. nat. 160. Aldrov. dig. 390. f. p. 391. Jonst. quad. 162. t. 63. 65.—Cuniculus indicus, f. C. guineensis, American, or Guinea Coney, having the hair and voice of a pig,

called Cavia Cobaya by the Brasilians. Marcgr. Bras. 224. Piso, Bras. 102. Pallas, spicil. zool. ii. 17. Raj. quad. 223.—Mus major, or Larger Moufe, having no tail, and variegated with tawny and white. Brown, Jam. 484.—Guinea-pig. Edw. av. t. 294. f. 2. Sm. Buff. iv. 296. pl. lxxxiv.—Restless Cavy. Penn. hist. of quad. n. 232.

Inhabits Brasil.—The manners of this animal, in a wild state, are not mentioned by authors; in a domestic state in Europe, they are very restless, grunting continually, and running about in their apartment; they feed on bread, grain, fruits, and vegetables of all kinds, preferring parsley; eat frequently, and little at a time, in a hasty manner; Buffon says they never drink, but Gmelin that they drink water; their voice is commonly a kind of grunt, like a young pig; when engaged in their amours, it resembles the chirp of a bird, and when hurt, they emit a sharp cry; they are extremely delicate, and impatient of cold or moisture; of tame and gentle, but stupid, dispositions; the female breeds at two months old, bringing from four or five to ten or twelve young ones at a birth, though she has only two teats, and breeds very often during the year, as she goes but three weeks with young, and takes the male twelve or fifteen days after littering. This species seldom exceeds seven inches in length; it is variable in colour, as are almost all domesticated animals; the hair is harsh, and is somewhat longer on the neck than on the rest of the body; the body is thick and short, with a very short neck, short, broad, naked ears, and large, prominent, brownish eyes.

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6. Patagonian Cavy.—*Cavia magellanica*.

Has hardly any tail; the sides of the nose are garnished with tufts of curly hair and long numerous whiskers. Penn. hist. of quad. n. 234. pl. xxxix.

Hare of Patagonia. Narborough, voy. 33. Byron, voy. 18.

Inhabits the country about Port Desire in Patagonia.—This species is of considerable size, sometimes weighing twenty-six pounds: The ears are long and much dilated at the bottom; the upper lip is divided; each side of the nose is garnished with a curly tuft of hair, and with numerous long whiskers; the tip of the nose is black; the face, back, and fore parts of the legs, are of an ash colour, mixed with rusty brown; the breast and sides are tawny, the rump is black; the belly is of a dirty white, and there is a white patch on the outside of each thigh; the legs are very long, having four toes before and three behind, armed with long, straight, black claws; the tail is only a short naked stump. This animal has the same manners with the rest of the genus; it sits on its hind legs, burrows in the ground, and feeds on vegetables. The flesh is very white, and has an excellent flavour.

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7. Capibara.—6. *Cavia Capybara*. 6.

Has no tail; the hind feet have each three toes, which are connected by a web. Schreber, iv. 620. t. clxxiv.

Sus hydrochaeris, having three toes on the hind feet, and no tail. Syst. nat. ed. xii. 103.—*Sus maximus palustris*, or Largest marsh Hog, called Cabiai, or Cabionara, by the natives. Barrere, Fr. equin. 160.—*Hydrochoerus*. Briss. quad. 117.—*Cavia Capybara*. Pallas, spic. zool. ii. 18.—*Capybara*, of the Brasilians. Marcgr. Bras. 230. Piso, Bras. 99. Jonst. quad. t. 60. Raj. quad. 126.—*Capivard*. Froger, voy. 123.—River-hog. Wafer, in Dampier's voy. iii. 400.—Cabiai. Sm. Buff.

vii.

vii. 64. pl. cciv.—Thick-nosed Tapir. Penn. Syn. 83. n. 61.—Cavy Capibara. Penn. hist. of quad. n. 231.

Inhabits the eastern side of South America, from the Isthmus of Darien to Brasil and Paraguay.—Lives in fenny woods near the large rivers, such as the Amazons, Oronoque, and Plata; swims and dives remarkably well, and keeps for a long time under water; catches fish at night with great dexterity, and brings them on shore to eat them, which it does sitting on its hind legs, and holding its food in the fore paws like an ape; it likewise feeds on fruits and vegetables, especially the sugar cane, feeding only in the night, and does vast mischief in gardens: The Capibara keeps together in large herds, making a great noise, like the braying of asses; grows very fat, and the flesh is eaten, being tender, but has an oily and fishy flavour: It is monogamous, that is, in breeding season, one male and one female live together, and the female only produces a single young one at a birth: It is easily rendered tame, and becomes very familiar. This animal is rather more than two feet and a half long when full grown; the head and nose are very large and thick, having small, erect, rounded, naked ears, and large black eyes; the upper jaw is much longer than the under, with black, roundish nostrils, a divided upper lip, and the nose is garnished with numerous black whiskers; in each jaw are two large strong fore-teeth, and eight grinders, which have the appearance of three small flat pointed teeth on the surface of each; the legs are short, having the toes connected by a web, and their extremities are guarded with a kind of hoofs instead of claws; the neck is short and thick; the hair is short, rough, and harsh, like bristles, being longest on the back, and most of them are yellowish in the middle and black at both ends.

XXV. BEAVER.—24. *CASTOR*. 23:

Has two very strong cutting teeth in each jaw; and four grinders on each side in both jaws. The tail is long, flattened, and scaly. The skeleton has perfect clavicles, or collar bones. All the feet have five toes.

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1. Common Beaver.—1. *Castor Fiber*. 1.

The tail is broad, flat, almost oval, has no hair, and is covered with scales. Mus. ad. Fr. i. 9. Schreber, iv. 623. t. clxxv.

Castor castaneus, or Chestnut Beaver, with a flattened tail. Briss. quad. 133. Gefn. quad. 309. D^r. aquat. 185. Rondel. aquat. 236. Aldrov. dig. 276. Jonst. quad. 147. t. 68. Raj. quad. 209.—*καστωρ*. Arist. hist. an. viii. c. 5. Oppian, i. 398.—*Fiber*. Plin. viii. c. 30. Agric. an. sub. 482. Belon. aquat. 25.—Bobr. Rzaczinski, Polon. 215.—*Biber*. Klein, quad. 91. Kramer, austr. 325.—Bafwer; Biur. Faun. Suec. n. 27.—*Castor*, Bièvre, or Beaver. Sm. Buff. v. 21. pl. cii.—*Castor*. Beaver. Penn. hist. of quad. n. 251. Arct. zool. n. 49.

β. White Beaver.—*C. Fiber albus*.

Of a white colour, with a flat broad tail. Briff. quad. 135.

Inhabits the northern parts of Europe, Asia, and America.—The Beavers in general prefer the banks of rivers and lakes in woody countries; they feed mostly on the bark and boughs of trees, which they lay up in store, as winter provision, and, in summer, on leaves and fruits, sometimes on crabs and craw-fish, but they are not fond of fish: The trees which they chiefly prefer are Sassafras, Ash, Sweet-gum, Service, Willow, Poplar, and Magnolia, and the roots of Flag, and other aquatic plants. They walk slowly, but swim with great dexterity, and remain in their habitations during the day, sleep with great soundness, and are remarkably cleanly; their dispositions are exceedingly mild and gentle, and, when caught young, are very easily tamed: They pair, or form into monogamous societies of one male and one female, in the winter season; the commerce of the sexes being in an erect posture: The female has four teats, goes four months with young, and brings two, seldom three, and very rarely four, at a litter.

The head and body measure two and a half or three feet long; the tail is about half that length, and three inches broad; it is quite flat and thin horizontally; about the quarter of its length nearest the body is covered with hair, the rest is entirely naked of hair, and is covered with scales: All the feet have five toes; the fore foot is small, and its toes are divided, but the hind foot is large, and all its toes are connected by a web, or membrane; the head is thick and pyramidal, ending in a blunt nose; the ears are short and hid in the fur; the neck thick and short; the body is strongly made, and highly arched in the back; the body is covered with a double coat of fur, one of which is very soft, downy, and of an ash colour; the other is longer, straight, coarser, and of a chestnut colour, which is the general colour of the animal; in different parts of the world, however, this colour varies; being darker, in general, in proportion as we go farther north, even sometimes entirely black; sometimes of an uniform white colour, sometimes white spotted with ash colour, or white interspersed with reddish hairs; very rarely yellowish.

The salivary glands of this quadruped are very large, and, besides these, it is provided with other glands at the right side of the upper orifice of the stomach, which secrete a large quantity of fluid into the stomach through eighteen distinct excretory orifices. Near the anus and external parts, are placed two large glands, having a kind of cellular follicles, or spongy excretories, which pour out a sebaceous matter of a peculiar heavy odour: This is the medicinal substance named *Castor*, of which each individual, both male and female, usually contains about two ounces: That produced by the Beavers of Russia is in much higher esteem than the American, and sells for a much greater price. For the anatomy of this animal, may be consulted, Wepfer, Eph. Nat. Cur. d. 1. a. 2. obs. 251. Sarasin, Act. Paris. 1704. p. 48. Act. Petrop. ii. 415.

So far Dr Gmelin; the singular ingenuity of this quadruped will excuse a farther digression than could possibly be allowed, in general, in a work of this nature, but the subject is extremely curious, and, were it not well vouched, might pass for fable. As the peculiar manners of the Beaver require extensive forests and sequestered waters, they are only found in large numbers in the thinly peopled wastes of North America, and in the north-eastern extremity of Asiatic Russia, especially about the Konda, and other rivers which flow into the Oby. They there associate together for carrying on their wonderful operations, in which they surpass very far the instinct and ingenuity of all other quadrupeds. They begin to assemble, in June or July, from all quarters of the country, till they form a troop of two or three hundred individuals, near the banks of some river or brook: If the water they have chosen

chosen be broad, and never rises above its ordinary level, as in lakes, they make no dam or bank; but, as rivers and brooks are subject to rise and fall, they build a bank to form a pond, or piece of water, which shall always remain at the same height: This embankment traverses the river, from side to side, like a sluice, and is often from eighty to a hundred feet long, by ten or twelve thick at the base. They generally choose a shallow part of the river for this purpose, or a brook running through a narrow flat vale; if they find a large tree on the bank, which can be made to fall in a proper direction, they begin by cutting it down to form the principal part of their work; and, though often thicker than the body of a man, they gnaw it through with their teeth in a very short time, and always contrive to make it fall exactly in the direction best fitted for their purpose; they next cut the branches from the trunk to make it lie level, and, while this is carrying on by one part of the community, others are employed in cutting down smaller trees of various sizes, from that of a man's leg to the thickness of the thigh; these they dress and cut into proper lengths for stakes, then drag them to the edge of the river, and afterwards float them to the place where the work is carrying on. Some are employed to place several rows of these stakes upright in the line of the embankment, as piles to support the weight, while others, diving to the bottom of the water, scrape holes to receive their lower ends: These piles are interwoven with the smaller branches to add to the general strength. This wooden frame is then filled up with earth, which they carry in their mouths, and with their fore feet, to the spot, where it is beat up into mortar with their feet and tails, and then rammed into all the intervals of the piles, which, towards the lower part of the river, are fixed in a perpendicular situation, while those above, which have to support the immediate weight of the water, are fixed in an oblique direction with their upper extremities pointing downwards. Thus, by a patient continuance of their united and astonishing labours, they complete their solid embankment, which is ten or twelve feet thick at the base, and gradually slopes to the top, where it is reduced to two or three feet. At the top of the bank they leave two or three sloping shallow gaps, to allow the surface water to escape; and they contract or enlarge these according to the quantity of water in the river.

Having completed the embankment, their next operation is to construct cabins or houses, which they perform with the same wonderful ingenuity by which their dam was accomplished: These are built on piles, near the margin of their artificial pond, having two doors or openings, one for going to the land, and the other for getting into the water: The houses are either round or oval, being constructed, like the dam, of piles wattled with branches, and filled up with stones and prepared earth; the walls, which are two feet thick, rise perpendicular for several feet, and are then regularly arched, like the top of an oven. Sometimes the houses consist only of one storey, sometimes of three or four; and they are of various sizes, holding from two, to eighteen, twenty, and even thirty individuals; and each village, or community, contains from ten or twelve, to twenty, or even twenty-five, cabins: Each cabin has, in its neighbourhood, a magazine of bark and boughs of trees, for winter provision, kept constantly under water. The insides of their houses are neatly plastered with mortar, spread and beaten firmly with their tails, and each individual forms its bed of moss, or of the tender twigs of box or fir.

The females bring forth about the end of winter, and continue in the cabins, to nurse and protect their young, for some weeks, and then go abroad into the woods: The males leave the cabins as soon as spring commences, and, during summer, they only make occasional visits to their winter residence. Should no accident happen to their embankment, or houses, they continue dispersed through the whole summer, and assemble again in autumn, to repair any inconsiderable breaches, and to lay in their winter stores. If their dam or cabins have been destroyed, they collect their whole force early, and

and set about the necessary repairs, or new buildings, with the same union, and appearance of intellect, as at their first construction.

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γ. Terrier Beaver.—*Castor Fiber solitarius*.

Besides these associated Beavers, there are others which, even in the same climates, live solitary in holes like Badgers; these are called *Terriers*, or *Terrier Beavers*, from their digging in the ground; they are easily distinguished from the rest by the dirtiness and ragged appearance of their coat, which is torn by rubbing on the earth of their holes. The Solitary Beavers are such as have either been deprived of a sufficient number of companions to carry on the labours of an establishment, by the destruction of their village; or they live in countries where mankind so much abound as to prevent the possibility of their finding sufficient quiet for carrying on their operations; some authors say, that part of them have been banished from among the associated Beavers, on account of crimes or indolence. At any rate, it is certain, that the associated Beavers are only found amid vast forests, while the solitary Beavers, besides being found in the same countries, are widely spread over many places where, at least in modern days, no associations take place. The solitary Beaver was well known to the ancients, in the neighbourhood of the Black Sea, and was called *Canis ponticus*, but they had no knowledge of their associations, and wonderful labours.

Beavers are found all over North America, Russia, and Siberia; they are very rare in Poland, Germany, France, Italy, Greece, and Egypt; there are none now in Britain, but some Beavers heads have lately been dug out of peat-bogs in the north of Scotland. The skins of this animal form a prodigious article of commerce, for the sake of the fine downy fur, of which the finest hats are made, and some other articles of manufacture. Above fifty-four thousand of them have been sold by the Hudson's Bay Company at one sale, besides those that are imported from other parts of North America. Those of a black colour are preferred, and such as are taken during winter, especially if they have been worn for some time by the Indians, by which the long hairs fall off, leaving the fine downy fur perfectly free, and better fitted for every purpose of manufacture.

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2. Chilese Beaver.—2. *Castor huidobrius*. 2.

The tail is compressed sidewise, broader in the middle, pointed, and hairy; the fore feet have the toes skirted with membrane, and the hind feet are webbed. Molina, hist. nat. Chil. 253.

Inhabits Chili.—Frequents the deepest parts of the lakes and rivers; is a fierce animal, which lives on fish and crabs, and is capable of staying a long while under water; it has no castor glands, neither does it imitate the wonderful architecture of the Common Beaver. The body of this species, from the tip of the nose to the rump, is about three feet long; the head is of a squared figure, with a blunt snout, small eyes, and short rounded ears; the fur is composed of two orders of hairs, like that of the Beaver, the undermost, or down, being much finer than that of the Rabbit, and is held in great estimation by the furriers; the upper parts of the body are ash coloured, and the lower parts whitish: The female brings two or three young ones each litter.—Perhaps this animal belongs rather to the tribe of Otters; but we must wait for farther information before it can be described with sufficient accuracy to ascertain its place in system.—T.

XXVI. MURINE QUADRUPEDS.—25. *MUS*. 24.

The upper fore-teeth are wedge-shaped: In general there are three, seldom two, grinders on each side of each jaw. Is provided with complete clavicles, or collar bones.

The animals of this genus are in general very swift, and climb trees or walls with great readiness; and some of them swim very well. They mostly dwell in holes, some of them digging burrows in the ground, while others satisfy themselves with the shelter of chinks in rocks or walls, or under stones, or any concealment that occurs by chance. They generally keep in their retreats all day, and go out during the night in quest of food, which is chiefly vegetables of different kinds; and, when feeding, they sit up, and carry their food to the mouth in their fore paws. The females have mostly eight teats, and breed several times in the year, having numerous litters each time. The ears are mostly short and rounded; and, in general, the fore paws have four toes, with a warty substance, or callosity, in place of the thumb or fifth toe. Several of the species emigrate at particular seasons of the year.

The word *Mus*, in the English language, being exclusively appropriated to some of the species of this genus, and *Rat*, which is employed by Mr Pennant as the generic term, being in the same predicament, it was judged better to use a compound term for the genus, than rigidly to adhere to the Latin term of Linnaeus. In imitation of the method adopted by Dr Gmelin and Mr Pennant, the genus is divided into several sections, to which, besides a kind of subgeneric character, collective names have been assigned, which, it is hoped, will be found very convenient for distinguishing the species of this very numerous genus.—T.

* BEAVER-RATS.—*MYOCASTORES*.

The tails of this division are flattened laterally at the ends.

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1. Webbed Beaver-Rat.—1. *M. Myocastor Coypus*. 1.

The tail is thick, hairy, of a moderate length, and somewhat flattened; the hind feet are webbed. Molina, hist. nat. Chil. 255.

Inhabits Chili.—Frequents the water, and has a strong resemblance, both in colour and shape, to the Otter; but, in the number and arrangement of its teeth, it resembles the Murine animals, having only two grinders on each side of the fore-teeth in each jaw. All the feet have five toes. The female brings five or six young ones at each litter.

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2. Musquash.—2. *M. Myocastor zibethicus*. 2.

The tail is long, flattened, and sharp pointed; the feet are not webbed. Schreber, iv. 638. t. clxxvi.

Castor zibethicus, or Civet Beaver. Syft. nat. ed. xii. i. 79.—*Mus moschiferus canadensis*, Canadian Musk Rat, or Musk Beaver, having the tail flattened sidewise, and all the toes separate. Briff. quad. 136.—*Ondatra*, or Canadian Musk Rat. Sm. Buff. v. 260. pl. cxxx.—*Rat musqué*. Sarrafin, act. Parif. 1725, p. 323. t. 11. f. 1. 2.—Charlev. nouv. Fr. v. 157. Lefcarbott, nouv. Fr. 350.—Defmans Rotter. Kaln. It. iii. 19.—Musk Beaver. Penn. hift. of quad. n. 252. Arct. zool. n. 41.—Musquash. Joffelyn, voy. to New Engl. 86.—*Musfascus*. Smith, Virginia. 27.—Musk Rat. Lawfon, Carolina. 120. Lever. Mus.

Inhabits North America.—This animal dwells near the fides of ftagnant waters, where it builds fmall round huts, of herbs and reeds cemented together with clay, and covered with a dome or arch-ed roof, having feveral pipes or galleries paffing out at the lower part, through which it can go in queft of food. So far its manners refemble thofe of the Beavers; but its labours are greatly lefs ingenious, and it does not lay up ftores of provifions for winter. It feeds chiefly on herbs and fruits in fummer, and in winter moftly on roots, efpecially thofe of the *Acorus* and *Nymphaea*, or Sweet-fcented flag and Water lilly; and it fometimes feeds on fhell-fifh, efpecially conchs, *conchae*. The males and females live together in pairs all fummer, and breed three or four times during that feafon; the female, which has fix teats on her belly, brings from three to fix young ones at a litter. It fwims and dives with great facility, but, when on the land, the gait is very unfteady. The nofe is thick and blunt, having large eyes, and fhort ears almoft hid in the fur; the toes of the hind feet, inftead of webs, are fringed on each fide with ftiong white hairs, which are clofely fet; the tail is comprreffed fidewife, very thin at the edges, and is covered with fmall fcales intermixed with a few fcattered hairs; the body is about a foot in length, and weighs three pounds; the tail is nine inches long; the fur is very foft, of a dark reddifh brown colour on the head and upper parts of the body, and afh colour, tinged with red, on the belly and breaft; near the anus are fome febaceous glands, which fcrete an oily fluid fmelling ftongly of mufk, efpecially in fummer. In the general form of the body and flat fcaly tail this animal refembles the Beaver, with which its manners and economy have likewife a very ftriking coincidence; in fize, however, and length of tail, it comes nearer to the Brown Rat; but in its general appearance, and in the fhort hairy ears, it refembles the Water Rat.

** RATS AND MICE.—MURES.

Having round tails.

Thefe Dr Gmelin feparates into two divifions, diftinguifhed from each other by the circumftance of their tails being naked or hairy. The former he names *Myofuri*, and the latter *Cunicularii*.

† Having naked round tails.—*Myofuri*.

1. *Piloris*.—3. *Mus Pilorides*. 3.

Has a cylindrical tail which is blunt at the end, and covered with fcales.

Of this there are two varieties mentioned in authors.

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α. White Piloris.—M. Pilorides albidus.

The body is of an uniform whitish colour. Pallas, glir. 91. n. 38.

Mus albus zeylonicus, or White Ceylon Moufe, with a very long tail. Briff. quad. ed. Bat. 122. n. 8.

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β. Black Piloris.—M. Pilorides fulvus.

The upper parts of the body are black or tawny; the under parts white. Penn. hist. of quad. n. 240.

Castor, or Beaver, having a small round tail. Brown's Jamaica, 484.—Piloris, or Rat musqué. Rochefort, Antil. 140. Du Tertre, hist. gen. des Antilles, ii. 302. Sm. Buff. v. 261.—Musk Cavy. Penn. synopf. of quad. n. 183.

The former variety of this species inhabits Ceylon, and the latter the West India islands.—They both burrow in the ground, sometimes infest houses like the Rat, and have a strong flavour of musk. They are nearly of the same size with a Rabbit, and the tail is about four inches long; the fore feet have four toes, with an excrescence in place of the inner toe, or thumb, and the hind feet have five toes; the ears are large and naked.

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2. Caraco.—4. Mus Caraco. 4.

The tail is long, scaly, and somewhat blunt; the body of a brown-grey colour; and the hind feet very slightly webbed. Pallas, glir. 91. n. 39. Nov. sp. fasc. i. 335. t. xxiii. Schreber, iv. 643. t. clxxvii.

Mus caraco. Penn. hist. of quad. n. 299. β.

Inhabits the eastern parts of Siberia, and probably Chinese Tartary and the northern provinces of China.—Burrows, like the Rabbit, near the banks of rivers, swims remarkably well, and even infests houses. The body and head are six inches in length, and the tail rather more than four inches and a half: The whole body weighs six or seven ounces: The head is long and narrow, having the eyes placed very near the ears; the fore feet have four toes, and an excrescence in place of a thumb, and the hind feet have each five toes, which are connected at their roots by a small fold of the skin; the colour of the upper parts of the body is deep brown mixed with ash colour, the belly a whitish ash colour, and the legs dirty white.

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3. American Rat.—Mus americanus.

The tail is long, naked, and scaly; the head is long-shaped, with a narrow pointed nose, the upper jaw being much longer than the lower; the ears are large and naked. Penn. hist. of quad. n. 299. Arct. zool. n. 58. Lever. Mus.

Inhabits north America.—This animal is larger than the Black, and smaller than the Brown Rat; it is of a deep brown colour, inclining to ash colour on the belly, and the fur is coarse and harsh. It is probably this species which is said, Kalm's trav. ii. 48. to live among the stones and clefts of rocks,

in the Blue mountains of Virginia, at a distance from the peopled part of the country, which comes out only at night, and makes a terrible noise.

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4. Brown Rat.—5. *Mus decumanus*. 6.

Has a long, naked, scaly tail; the upper parts of the body are of a light brown, mixed with tawny and ash colour, the lower parts dirty white. Pallas, glir. 91. n. 40. Schreber, iv. 645. t. clxxviii.

Mus norvegicus, or Norwegian Rat, with a long tail, and of a reddish colour, having four toes on the fore feet, with a small claw in place of the fifth, or thumb. Erxleb. mam. 381. n. 1.—*Mus silvestris*, or Wild Rat, with a very long tail, of a dilute reddish brown colour, the belly whitish. Briff. quad. 170. n. 3.—*Mus aquaticus*. Gefn. aquat. 732.—Surmulot, or Brown Rat. Sm. Buff. iv. 336. pl. xcvi. Penn. hist. of quad. n. 298. Arct. zool. n. 57.—Norway Rat. BRIT. ZOOL. i. n. 26.—Bandicote. Purchas, ii. 1170.

Inhabits India and Persia, and has only been known in Europe in the present century.—Dwells in burrows which it digs in the banks of rivers, and frequents towns, aqueducts, drains, necessaries, stables, barns, gardens, fields, and houses; it swims and dives with great dexterity; feeds on vegetables, grain, fruits, and even destroys poultry; is hunted greedily by Cats, Dogs, and Ferrets. This animal lays up stores of acorns, beach-mast, and other provisions, in its holes, in which the males remain during winter, except in fine weather, without hybernating, but the females and their young live mostly in barns and out-houses in that season: It often emigrates from one place to another in great companies. The female produces three times in the year, having twelve or fifteen, even eighteen or nineteen, at a litter. The body, of a full grown individual, is near nine inches long; the tail, which consists of two hundred rings, is seven and a half inches in length; and the whole body usually weighs from eight ounces to a pound; the feet are naked, and of a dirty flesh colour; the toes are very distinct; the whiskers are longer than the head; and the eyes are large, black, and prominent. This species is probably the *Mus caspicus* of Ælian, which he says was nearly as large as the Ichneumon, and made periodical visits in vast multitudes to the countries which border on the Caspian, swimming boldly over the rivers, holding by each others tails. Ælian. hist. cap. xvii.

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5. Black Rat.—6. *Mus Rattus*. 12.

Has a very long scaly tail; the upper parts of the body are deep black grey, and the under parts ash coloured. Pallas, glir. 93. n. 41. Schreber, iv. 647. t. clxxix.

Mus Rattus, or Common Rat, with a long and almost naked tail; having four toes, and a small claw in place of the fifth, on each fore foot, and five on the hind feet. Syft. nat. ed. xii. 83. Faun. Suec. ii. 12. n. 33. Mull. prodr. 5. n. 31. Briff. quad. 168, n. 1. Gronov. zooph. 4. n. 18.—*Mus domesticus major*, or Larger domestic Mouse, usually named Rat. Gefn. quad. 731. Raj. quad. 217.—*Rattus*. Aldrov. dig. 415.—Glis. Jonst. quad. t. 60.—Sorex. Hufnagel, archetyp. 3. t. iii.—Rat. Sm. Buff. iv. 275. pl. lxxi. f. 1.—Black Rat. Penn. hist. of quad. n. 297. Arct. zool. n. 56.—Common Rat. BRIT. ZOOL. i. n. 27.

Inhabits India, Persia, and Europe, except its most northern parts; from hence it has been carried to Africa and America, and is frequent in Otaheite, though less common in the other islands of the southern

southern ocean.—Of late years this species has greatly diminished in Europe, and is even in many places extirpated, in consequence of the introduction of the Brown species, which destroys the Black Rats. The Black Rat is a cautious and fierce animal, which eats very voraciously of almost every thing that comes in its way, and drinks little; it is a great pest in houses, as it attacks every kind of provision, and gnaws the furniture: It even preys on its own species: It is preyed on, in its turn, by owls, weasels, and cats, though many of these last will not venture to attack them. The female has ten teats, breeds several times every year, and brings five or six young ones at a birth. The head and body measure about seven inches long, and the tail, which is very small, and has two hundred and fifty distinct rings, is about an inch longer than the body; the whole body weighs near six ounces; the fur is of a deep iron grey colour, almost black; the belly ash coloured; the feet and legs are dusky, and almost naked; sometimes the upper parts of the body are dusky or ash coloured; rarely spotted with white, or altogether white, with red eyes.

466

β. Small Rat.—*Mus Rattus minor*.

In the neighbourhood of the lower parts of the river Volga there is a small variety of this species, found in the deserts, which does not weigh above six or seven drams. Pallas, nov. sp. Fasc. i. 93.

467

6. Common Mouse.—7. *Mus Musculus*. 13.

The tail is very long, scaly, and almost naked; the fore feet have each four, and the hind feet five toes; the fifth, or thumb, having no claw. Faun. Suec. 34.

Mouse, with a very long scaly tail; the upper parts of the body being tawny, and the lower parts whitish or ash coloured. Pallas, glir. 95. n. 43. Schreber, iv. 654. t. clxxxi. Faun. Suec. i. 11. n. 31. Mus. ad. Fr. i. 9. Briss. quad. 169. n. 2. Gronov. zooph. i. 4. n. 19. Brown, Jamaic. 484.—*Mus domesticus minor*, or Lesser domestic Mouse. Aldrov. dig. 417. Raj. quad. 219. Sloan, Jamaic. ii. 330. Jonst. quad. 165. t. 66. Hufnagel, archetyp. i. t. 3. 10. p. 2. t. 8. p. 4. t. 2.—Souris, or Mouse. Sm. Buff. iv. 282. pl. lxxxi. f. 2.—Common Mouse. Penn. hist. of quad. n. 301. BRIT. ZOOL. i. n. 30. Arct. zool. n. 60.

Inhabits all parts of the world.—This little animal is hardly three inches and a half long; it lives almost entirely in houses, and follows mankind for the sake of their provisions; it feeds on almost every thing, such as grain, bread, cheese, butter, oil, and every kind of food used by mankind, and drinks little; it is of mild and gentle manners, exceedingly timid, and very quick in all its motions; is exceedingly prolific, breeds frequently, and produces five or six at each litter; is preyed on by cats, rats, weasels, owls, and hedge-hogs; may be destroyed likewise by means of Elder and Black Hellebore.

468

α. Several varieties of Mice, as to colour, are found; some being altogether black, some yellowish, some spotted with white, some of a white colour with ash coloured spots, and the most beautiful of all, and the least common, are entirely white, with red eyes; but, as these agree in every other circumstance, it is unnecessary to describe them more at large.

469

7. Field Moufe.—8. *Mus sylvaticus*. 17.

Has a long scaly tail; the upper parts of the body are of a yellowish brown colour, the breast yellow, and the belly white. Pallas, glir. 94. n. 4. Schreber, iv. 651. t. clxxx.

Moufe, with the tail of a middle length, having four toes on each foot before, and five behind; the body of a yellowish brown colour, with a few dusky hairs, and the belly whitish. Syst. nat. ed. xii. i. 84. Faun. Suec. ii. 12. n. 36.—Moufe, with a long tail, the upper parts of the body being of a yellowish brown colour, and the under parts whitish ash coloured. Briff. quad. 174. n. 9.—*Mus campestris major*, or Larger field Moufe, having a very long tail, of a dusky colour, and reddish on the sides. Briff. quad. 171. n. 4.—*Mus agrestis minor*, or Lesser field Moufe. Gefn. quad. 733.—*Mus domesticus medius*, or Middle domestic Moufe. Raj. quad. 218.—Mulot, or Long-tailed field Moufe. Sm. Buff. iv. 285. pl. lxxxii. f. 1.—Field Moufe. Penn. hist. of quad. n. 302.—Long-tailed field Moufe. BRIT. ZOOL. i. n. 28. Arct. zool. n. 61.

Inhabits Europe.—Is found in woods, fields, gardens, and shrubberies; and, during winter, comes into barns, stables, and out-houses: It feeds on grain of all kinds, nuts, acorns, beech mast, and other seeds, of which it makes great magazines in its holes under ground; likewise on other species of this genus, small birds, and even on its own species. Hogs are often led by the smell to their hoards, and do great mischief in the fields by digging them up. It is preyed on by hawks, foxes, polecats, and martins. This species is rather larger than the Common Moufe, being near four and a half inches long; and the tail, which is blackish above, white underneath, and slightly covered with hair, is of the same length with the body; the feet and legs are of a pure white colour. The female makes a nest for her young, either in a tuft of grass, or immediately below the surface of the ground, and produces from seven to ten young ones at a birth.

470

β. White Field Moufe.—*Mus sylvaticus albus*.

Is entirely white, with red eyes.

This variety is but rarely met with.

471

8. Harvest Moufe.—*Mus messorius*.

Has a long scaly tail; the upper parts of the body are of a full rusty brown colour, the belly is white, and a straight line along the sides divides the two colours. Penn. hist. of quad. n. 303.

Less Long-tailed field Moufe. Penn. BRIT. ZOOL. ii. app. 498. Syst. nat. ed. Gmel. i. 129. n. 17. β.—Harvest Rat. Penn. syn. of quad. n. 231.

Inhabits Hampshire.—This species, or perhaps rather variety of the former, is less than the preceding, being only two inches and a half long from the nose to the rump, and the tail, which is somewhat hairy, is two inches in length: It weighs only about a quarter of an ounce. It never enters houses, but is very numerous in the fields during harvest, and is often carried in great numbers among the sheaves into the barn-yard. The female makes a round nest of blades of corn, for her young,
between

between the straws of standing corn, and brings about eight at a birth. It burrows very deep in the ground, forms a warm bed of dried grafs, and takes shelter in its hole during winter.

472

9. Rustic Moufe.—9. *Mus agrarius*. 7.

The tail is long and scaly; the body is of a yellowish colour, with a dusky or black line along the back. Pallas, It. i. 454. D°. Glir. 95. n. 44. and p. 341. t. 24. A. Schreber, iv. 658. t. clxxxii.

Mus rubeus, or Reddish Moufe. Schwenkfeldt, An. Siles. 114. S. G. Gmel. It. i. 151. t. 29. f. 2.

Inhabits Russia, from the Tanais to the Jenifei; in Silesia, and rarely in Germany.—This species is migratory, and wanders about often in vast multitudes, doing prodigious harm to the corn: It is about three inches long, and scarcely weighs half an ounce; the tail is only about half the length of the body and head; the belly and legs are white; the head is oblong, with a sharp nose, and small ears lined with fur; the hind legs have each a dusky circle just above the foot. It burrows in the ground, forming a long gallery just below the surface, and a little elevated, leading to a larger chamber, in which considerable quantities of grain and seeds are stored up for winter provision.

473

β. American Rustic Moufe.—*Mus agrarius americanus*.

Has a broad stripe along the middle of the back of a mixed dusky and ferruginous colour; the cheeks, space beneath the ears, and sides, are orange coloured; and all the under parts of the body, the legs and feet, are pure white. Penn. hist. of quad. n. 302. β.

Inhabits New-York.—The ears are large, open, and naked; the whiskers very long, some of the hairs being white and others black; the hinder legs are somewhat longer than the fore; the tail is dusky above, and whitish beneath.

474

10. Minute Moufe.—10. *Mus minutus*. 8.

The tail is long and scaly; the upper parts of the body are of a deep tawny or ferruginous colour, and the under parts whitish. Pallas, It. i. 454. n. 4. D°. Glir. 96. n. 45. and p. 345. t. 24. β. Schreber, iv. 660. t. clxxxiii.

Inhabits Russia.—Is about half the size of the Common Moufe, the tail being scarcely two inches long; the female is smaller than the male, and less elegant in her colours; the nose is somewhat sharp; the face is dusky, with some whiteness at the corners of the mouth; the ears are small, and almost hid in the fur; the feet are grey. This species is found in the corn fields and in barns, and is plentiful in birch woods; it seems to wander about, without any fixed places for its nest; and much greater numbers of males are found than of females.

475

β. Yellow Minute Mouse.—*Mus minutus flavus*.

Is elegantly yellowish coloured on the upper parts, and pure white on the under parts, of the body. Syft. nat. ed. Gmel. i. p. 130.

Inhabits Siberia.—This variety is exceedingly beautiful.

476

11. Shrew-like Mouse.—11. *Mus foricinus*. 10.

The tail is of a middle length and somewhat hairy; the snout is lengthened; the ears are rounded and hairy; the upper parts of the body are of a yellowish grey colour, and the lower parts whitish. Schreber, iv. 661. t. clxxxiii. B.

Inhabits the neighbourhood of Strasburgh in Germany.—This species was discovered by Professor Herman: It is scarcely two inches and a half long; the snout has seven rows of whiskers; the fore feet have four toes each, and a tubercle in place of a thumb, the hind feet five toes, all armed with very small claws; the tail is all over of a mixed yellowish and ash colour, being rather more hairy on its under surface.

477

12. Wandering Mouse.—12. *Mus vagus*. 14.

The tail is very long and almost naked; the colour of the upper parts of the body is a pale ash, waved with black, and having a black line along the middle of the back; the ears are large, oval, naked, and plaited. Pallas, glir. 90. n. 36. and p. 327. t. 22. f. 2. Schreber, iv. 663. t. clxxxiv. f. 2.

Mus subtilis, or Cunning Mouse. Pallas, It. ii. 705. n. 11. α.—Wandering Mouse. Penn. hist. of quad. n. 308.

Inhabits the deserts of Tartary, and in Siberia, as high as the Ural, Irtysh, Oby, and Jenisei.—Is frequent in the birch woods, and lives in fissures of rocks, under stones, and in hollows of trees; feeding chiefly on seeds, and likewise on small animals of the same genus. It wanders about in great flocks, migrating from one place to another in the night; hybernates during winter, and is of a very chilly nature, so as even to become torpid and fall asleep, in a round form, in the cold nights of the month of June. It is between two and three inches long, the tail being almost three, and weighs two drams; the legs are very slender, and the feet whitish, having four toes, and a conical excrescence, before, and five behind, all armed with long claws; the tail is longer than the body, very slender, prehensile at the end, of an ash colour above and whitish below; the head is oblong, with a blunt nose reddish at the tip, having yellow fore-teeth, and only two grinders on each side in the upper jaw. The female has eight teats.

478

13. Beech Mouse.—13. *Mus betulinus*. 15.

Has a very long and almost naked tail; the upper parts of the body are tawny, with a black line along the back, the under parts whitish, or pale ash colour; the ears bristly at the ends. Pallas, Glir. 90. n. 35. and p. 332. t. 22. f. 1. Schreber, iv. 664. t. clxxxiv. f. 1.

Mus

Mus subtilis, or Cunning Moufe. Pallas, It. ii. 705. n. 11. β .—Beech Moufe. Penn. hift. of quad. n. 309.

Inhabits the birch woods in the defert plains of Ifchim and Baraba, and between the Oby and Jenifci,—Lives folitarily, frequenting the hollows of decayed trees; runs up trees readily, and faftens on their branches with its tail, and by means of its flender fingers, or toes, it can faften even to a very fmooth furface: This fpecies has confiderable refemblance to the Wandering Moufe, but is fomewhat fmaller; the nofe is fharp, with a red tip; the ears are fmall, oval, plaited, brown, and briftly at the ends; the limbs are very flender, with long, and very feparable toes; the tail is flender, and much longer than the body, being brown above and whitifh underneath. The Beech Moufe is very delicate, and foon grows torpid in cold weather; its voice is very weak.

14. Dwarf Moufe.—14. *Mus pumilio*. 18.

The tail is of a middle length, and almoft naked; the general colour is a brownifh afh, with the fore-head and nape of the neck black; and having four black lines along the back, meeting at the tail. Sparrman, æt. Stockholm, 1784, 239. t. vi.

Dwarf Moufe. Sparrman, voy. to Cape of Good Hope, Eng. ed. 1785, app. to vol. ii. 347. t. vii.

Inhabits the forests of Sitticamma near Slangen river, two hundred hours journey eaft from the Cape of Good Hope.—This fpecies is fcarcely two inches long, the tail is about two-thirds of the length of the body, and the whole animal, even when fteeped many months in fpirits, hardly weighs four fcruples. The body is fomewhat flattened; the regions of the eyes, the ears, and the nofe, are of a paler colour than the reft of the body; all the feet have five toes, the thumb or inner toe of the fore feet being very fmall, but diftinctly furnished with a claw; the legs and feet are ftrongly made; the tail is almoft naked, and of a pale afh colour.

15. Striped Moufe.—15. *Mus ftriatus*. 19.

The tail is long, and almoft naked; the body is elegantly marked with twelve rows of fmall white fpofts. Pallas, Glir. 90. n. 37.

Moufe, with a long and almoft naked tail; having four toes before and five behind; the body marked with rows of fpofts. Syft. nat. ed. xii. i. 84. Muf. ad. Fr. i. 10.—*Mus orientalis*, or Oriental Moufe, with a long tail, of a reddifh colour, and marked on the back with rows of pearl coloured fpofts. Briff. quad. 175. n. 10. Seba, Muf. ii. 22. t. 21. f. 2.—Oriental Moufe. Penn. hift. of quad. n. 304. Pallas, Glir. n. 97. Nat. mifc. pl. 73.

Inhabits India.—This fpecies is about half the fize of the Common Moufe, and the tail is of the fame length with the body; the upper parts of the body are of a brownifh grey colour, the lower parts whitifh; the ears are fhort, round, and naked.

β . Cherofo.—*Mus moschatus*.

In the fame country, and in Guinea, is another very fmall fpecies of Moufe, not fufficiently defcribed, which fmells of mufk. It is called by the Portuguefe, who fay its bite is venomous, *Cherofo*. Penn. hift. of quad. p. 446. Boullaye la Gouz. 256. Barbot, Guinea. 214.

482

16. Barbary Moufe.—16. *Mus barbarus*. 20.

The tail is of a middle length; the body is brown, with ten whitish stripes; has three toes before and five behind. Syft. nat. ed. xii. T. i. P. 2. add.

Barbary Moufe. Penn. hift. of quad. n. 305.

Inhabits Barbary.—This species is fmaller than the Common Moufe; the under parts of the body are whitish; the tail is naked, annulated, and as long as the body; on the fore paws are the rudiments of a thumb or inner toe.—Dr Gmelin fufpects that this animal fhould be referred to the Cavy genus.

483

17. Mexican Moufe.—*Mus mexicanus*.

Has a large reddifh spot on each fide of the belly. Penn. hift. of quad. n. 306.

Mus mexicanus maculatus, or Spotted Mexican Moufe. Seba, Muf. i. 74. t. xlv. f. 5.

Inhabits Mexico.—Is of a whitifh colour, mixed with red, and having a large reddifh spot on each fide of the belly; the head is whitifh.

†† With round hairy tails.—*Cunicularii*.

484

18. Virginian Moufe.—*Mus virginianus*.

The tail is univerfally hairy, very thick at the bafe, decreafes gradually, and becomes very long and flender. Penn. hift. of quad. n. 307. Arct. zool. n. 62.

Mus fylveftris americanus albus, or White American Field Moufe. Seba, Muf. i. 76. t. xlvii. f. 4.

Inhabits Virginia.—The nofe is pointed and black; the ears pointed; the limbs very flender; the colour is univerfally white; the tail tapers gradually from the rump, fo as hardly to be diftinguifhed from that at its origin.

485

19. Rock Moufe.—17. *Mus faxatilis*. 21.

The tail is hairy, and of a middle length; the ears are longer than the fur; the fore paws have three toes and the rudiments of a fourth. Pallas, Clir. 80. n. 19. and p. 255. t. 23. B. Schreber, iv. 667. t. clxxxv.

Rock Moufe. Penn. hift. of quad. n. 312.

Inhabits the eastern parts of Siberia, beyond lake Baikal, and in the deferts of Mongul Tartary.—Burrows in the fiffures of rocks, forming a winding oblique paffage, which afterwards branches out into feveral others pointing downwards, and ending in a chamber, in which is a bed, or neft, made of foft herbs. This species is about four inches long, and weighs nearly nine drams; the tail is an inch and a half in length, of a brown colour above, and white beneath; the head is oblong, with a longifh nofe, and oval, downy ears, brown at the edges; the limbs are ftrong; and the tail is thinly covered with hair; the upper parts of the body are of a brown colour, flightly mixed with yellowifh, or grey; the

the sides are rather inclined to the latter colour ; the belly is of a light ash or whitish ; the feet and legs are blackish ; the snout is dusky, and surrounded with a slender white ring. This species feeds chiefly on the seeds of the *Astragalus*.

486

20. Blue Mouse.—18. *Mus cyanus*. 22.

The tail is of a middle length and somewhat hairy ; the upper parts of the body are of a blue colour, and the under parts whitish. Molina, hist. nat. Chil. 266.

Inhabits Chili in South America.—In size and general appearance this species resembles the Field Mouse, except in colour ; the ears are rounded ; and the animal is extremely timid : It forms large burrows, which are divided into several chambers, and into which it collects great stores of bulbous roots ; for these the natives search with great care.

487

21. Water Rat.—19. *Mus amphibius*. 11.

The tail is of a middle length ; the ears scarcely appear above the fur ; the feet have three toes on each, and the rudiments of a fourth. Pallas, Glir. 80. n. 20. Schreber, iv. 668. t. clxxxvi.

Mouse, or Rat, with a long hairy tail, having the hind feet webbed *. Syst. nat. ed. xii. 82. Faun. Suec. ii. 12. n. 32.—Mouse, having the tail of a middle length ; the fur is blackish ; the fore feet are each provided with four toes, and a little claw in place of the fifth. Erxleb. mam. 386. n. 3.—*Mus aquaticus*, or Water Rat, with a long tail ; the upper parts of the body being covered with black hair, mixed yellowish, and the under parts ash coloured. Briff. quad. 175. n. 11.—*Mus aquaticus major*, *Rattus aquaticus*, Larger Water Mouse, or Water Rat. Raj. quad. 217.—*Mus agrestis major*, or Larger Field Mouse. Gefn. quad. 733. Raj. quad. 219.—Water Rat. Sm. Buff. iv. 290. pl. lxxxii. f. 2. Penn. hist. of quad. n. 300. Arct. zool. n. 59.

488

β . Meadow Water Rat.—19. β . *Mus amphibius terrestris*.

Has a somewhat hairy tail of a middle length ; having three toes, and the rudiments of a fourth on the fore feet, and five behind ; the ears being shorter than the fur †. Syst. nat. ed. xii. 82. n. 10. Faun. Suec. ii. 11. n. 31.

Mus agrestis brachyurus, or Short-tailed Field Mouse, having a large head. Raj. quad. 218.

489

γ . Marsh Water Rat.—19. γ . *Mus amphibius paludosus*.

Of a black colour, with a hairy tail of a middle length ; having three toes, and the rudiments of a fourth, on each fore foot, and five behind ; the ears are shorter than the fur. Mant. pl. 2. 522.

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* This last circumstance is a mistake copied by the great Linnaeus after Willoughby and Ray.

† Mr Pennant refers this variety to the *Mus arvalis*, or Meadow Mouse, to be afterwards described, but it is retained here on the authority of Dr Gmelin.—T.

490

♂. Black Water Rat.—19. ♂. *Mus amphibius niger*.

Of a uniform black colour.

491

ε. Spotted Water Rat.—19. ε. *Mus amphibius maculatus*.

Has a large white spot on the back, and a white line on the breast.

Inhabits the whole of Europe, the northern parts of Asia as far as the icy sea, and North America.—The several varieties of this species dwell chiefly near waters, forming burrows in their steep banks, about ponds and wet ditches; likewise in marshy places, meadows, and gardens; they feed on roots, herbs, and shrubs, and on frogs, craw-fish, insects, small fish, and the fry of larger ones. The flesh of these animals is reckoned very delicate by some of the more savage inhabitants of the Russian empire, and is eaten by the French, along with that of the Otter, during Lent. The female is smaller than the male, and has a greater yellowness of colour; she has eight teats, four of which are placed on the breast, and four on the belly. They procreate about the end of winter, at which time they smell strongly of musk, and produce as far as eight young ones in the month of April. The nose is thick and blunt, with short ears, which are hid in the fur, small eyes, and yellow teeth; Mr Pennant says, that all the feet, both before and behind, have five toes, the inner toe of the fore feet being very small; the fur is black, mixed with some ferruginous hairs; the tail is covered with short black hair, and is whitish at the tip; the body and head are both thick, short, and compact, and measure seven inches long; the tail is from three to five inches in length; the ears are of an oval shape, and bristly at the edges; the whole animal, according to Mr Pennant, weighs nine ounces, though, according to Dr Gmelin, it only weighs from two to three. This species is very fierce, and bites bitterly; it swims and dives with great facility, and lives much in the water.

492

22. Garlic Mouse.—20. *Mus alliarius*. 23.

The tail is short; the ears are rather large, and somewhat hairy; the body is ash coloured on its upper parts, and whitish underneath. Pallas, Glir. 80. n. 18. and 252. t. xiv. f. C. Schreber, iv. 671. t. clxxxvii.

Garlic Mouse. Penn. hist. of quad. n. 315.

Inhabits Siberia, about the rivers Jenisei, Kan, Lena, and Angara.—Feeds on the roots of garlic, of which it lays up large stores in subterraneous burrows. The ears are large, open, and naked; the tail is hairy, being of a white colour, marked on its upper part with a dusky line; the back is ash coloured, mixed with longer hairs tipped with dusky grey; the sides are pale ash coloured, and the belly, breast, and feet are white; the fore feet have each four toes; the body and head measure a little more than four inches; the tail scarce an inch and a half. This species resembles the Meadow Mouse, 20 be afterwards described; but, in the form of the head, the whiskers, and the ears, it comes nearer to the Common Mouse, though greatly larger.

493

23. Red Mouse.—21. *Mus rutilus*. 24.

Has a short tail; the ears are longer than the fur, which is tawny red on the back,
light

light grey and yellow on the sides, and whitish on the belly. Pallas, Glir. 79. n. 17. and p. 246. t. xiv. B. Schreber, iv. 672. t. clxxxviii.

Red Moufe. Penn. hift. of quad. n. 314. Arct. zool. i. 136. B.

Inhabits Siberia, from the Oby as far as Kamtschatka, and within the Arctic circle.—The head and body meafure fcarce four inches, and the tail a little more than one; the face and nofe are very briftly; the tail is hairy, yellowish on its upper part, with a dusky line along its whole length, and white below; the ears are large, open, and naked, being tipt with a rusty coloured down: This fpecies has confiderable affinity to the Meadow Moufe, but the legs and feet are more hairy, and white; it lives in holes and hollows of trees; feeding on grain, and fometimes on animals of the fame genus, likewife eats almoft of every thing which comes in its way, and is fond of flefh; it comes often into houfes and barns; is very lively, and runs about, even on the fnow, the whole winter.

494

β. Lesser Red Moufe.—*Mus rutilus minor*.

A fmaller variety of this fpecies has been found about Cafan, and in the botanical garden at Goettingen in Germany.

495

24. Gregarious Moufe.—22. *Mus gregalis*. 25.

Has a fhort tail; the ears are longer than the fur; the fore feet have each three toes and the rudiments of a fourth; the fur is dark afh coloured on the upper parts, and whitish below. Pallas, Glir. 79. n. 16. and 238. Schreber, iv. 674. t. clxxxix.

Gregarious Moufe. Penn. hift. of quad. n. 323.

Inhabits the eastern parts of Siberia.—Dwells in arid places, forming burrows, with numerous openings, directly under the fód; thefe lead to chambers, in which it lays up large ftores of roots, efpecially thofe of the *Lilium pomponii* and garlic: This fpecies is lefs than the next, or Economic Moufe, and longer than the Social; the female being near five inches long, and the male about an inch fhorter; the nofe is blunt, with a fmall mouth, and naked ears which appear above the fur; the hair on the upper parts of the body is black at the roots and tips, and ferruginous in the middle; the throat, belly, legs, and feet, are whitish; the tail is covered with thin white hairs, being tipt with black and afh colour: It eats fitting up.

496

25. Economic Moufe.—23. *Mus oeconomus*. 26.

The tail is fhort; the ears are naked and hid in the fur; the colour is tawny; and the fore feet have each three toes with the rudiments of a fourth. Pallas, Glir. 79. n. 15. and p. 225. t. xiv. A. and It. iii. 692. n. 4. Schreber, iv. 675. t. cxc.

Economic Moufe. Penn. hift. of quad. n. 313. Arct. zool. i. 134. A. Georgi, It. 161.—Tegoulitchek. Defcr. of Kamtschat. Eng. ed. 104.

Inhabits Siberia, from the river Irtyfch eastwards, in Kamtschatka, and under the Arctic circle.—The eyes are fmall; the ears naked, and almoft hid in the fur; the teeth are very tawny; the colour
of.

of the fur is black and yellow intimately mixed, the back dusky, and the throat, breast, and belly hoary; the under parts of the whole fur are dark brown; the ends of the feet are dusky; the head and body measure four inches and a quarter; the tail rather more than an inch; the general form resembles that of the Meadow Mouse, but the body is rather longer, and the belly larger. This species dwell mostly in damp soils, forming burrows, with many chambers and numerous entrances, immediately under the turf. In these it lays up magazines of various vegetable food, chiefly bulbous roots; and lays them out in sunny days to dry, and never touches them but in winter, living all summer on berries and other vegetables. The Kamtschatkans hold these animals in great regard, and never destroy their hoards; they take away only part, and leave some Caviare, or some other substance to support them in its stead. This species sometimes emigrates in vast multitudes, keeping a straight course even over rivers, and is much infested on their march by birds, fish, wild hogs, foxes, and other wild beasts. They begin their march from about the river Pengin in spring, and, about the middle of July, reach Ochotka and Judoma, at a vast distance; and return in October. The Kamtschatkans are much alarmed at their migrations, which portend rainy weather and a bad chase; and, when they find them lying weak and spent with fatigue after crossing a river, give them every assistance in their power. The Tschutski are not so much attached to this animal, and make use both of their winter stores and of their carcases as food.

497

β. Laland Mouse.—*Mus glareolus*.

Dr Gmelin is at a loss whether the animal described by O. F. Muller, under the name of *Mus glareolus*, as found in the isle of Laland, and figured by Schreber, iv. t. cxc. B. should be referred to this species; but he gives no description by which the circumstance may be ascertained.

498

26. Woolly Mouse.—24. *Mus laniger*. 27.

The tail is of a middle length; the fore feet have each four, and the hind feet five toes; the fur is woolly, and of an ash colour. Molina, hist. nat. Chil. 267.

Inhabits the north parts of Chili, and in Peru.—This animal burrows in the earth, is very docile and cleanly, and is easily tamed; it lives on bulbous roots, especially onions; the female breeds twice a year, and brings five or six young ones at each litter. It is about six inches long, with a short nose, and small sharp pointed ears; the fur is very long and exceedingly fine, almost like the threads of a spider's web, and was formerly employed as the very finest species of wool by the Peruvians.

499

27. Meadow Mouse.—25. *Mus arvalis*. 16.

The tail is short; the ears scarce reach beyond the fur; the fore feet have each three toes and the rudiments of a fourth; the fur is dusky. Pallas, Glir. 79. n. 14. Schreber, iv. 680. t. cxci.

Mus gregarius, or Gregarious Mouse, having a somewhat hairy tail one third the length of the body; the body is mixed brown and black on the upper parts, the lower parts white. Syft. nat. ed. xii. i. 85.—*Mus terrestris*, or Land Mouse, with the tail of a middle length; the ears shorter than the fur; the upper parts of the body rusty brown, and the lower parts ash coloured. Erxleb.

mam.

mam. 395. n. 7.—*Mus campestris minor*, or Smaller Field Mouse, having a short tail; the upper parts of the body mixed blackish and dirty yellow, the under parts ash colour. Brit. quad. 176. n. 12.—Campagnol, or Short-tailed Field Mouse. Sm. Buff. iv. 293. pl. lxxxiii. Gefn. quad. 733. Penn. hist. of quad. n. 322. BRIT. ZOO. i. n. 31. Arct. zool. n. 65.

Inhabits all Europe, Siberia, Hircania, and Newfoundland.—Dwells in bushy places, corn-fields, meadows, and gardens, chiefly near waters; lives on grain, nuts, acorns, and walnuts, which it collects into subterraneous burrows; is preyed on by foxes, polecats, weasels, cats, and field mice: The female produces several times a year, and brings from eight to twelve young ones at a birth. This species is from three to six inches long, the female being much longer than the male, and the tail is little more than an inch; the head is large, with a blunt nose, short ears, almost hid in the fur, and prominent eyes; the upper parts of the body are of a mixed ferruginous and black colour; the belly is deep ash, and the legs and feet dusky; the tail is terminated by a small tuft of hair.

β. Blackish Meadow Mouse.—*Mus arvalis nigricans*.

Is of a blackish brown colour on the upper parts of the body.

Dr Gmelin is uncertain, if the animal described by Linnaeus under the name of *Mus agrestis*, with a short tail, of blackish brown colour on the upper parts, and ash colour on the belly, should be considered as a variety of this species. Faun. Suec. ed. 2. p. ii. n. 30.—In the plate quoted from Buffon are three individuals of this species; the two lower figures are of a lighter colour, and seem to be the former variety; but the upper one is almost black, and is probably the variety mentioned above from the Fauna of Linnaeus.

28. Social Mouse.—26. *Mus socialis*. 28.

Has a very short tail; the ears are naked, rounded, and very short; the fore feet have each three toes and the rudiments of a fourth; the upper parts of the body are light grey; the sides, shoulders, and belly, are white. Pallas, Glir. 77. n. 13. and p. 218. t. xiii. B. Schreber, iv. 682. t. xcii.

Social Mouse. Penn. hist. of quad. n. 321. Pallas, It. ii. 705. n. 10.—*Mus alius*, et *Mus microurus*. S. G. Gmel. It. ii. 173. t. ii. and iii. 500. t. 57. f. 2.

Inhabits the sandy deserts between the Volga and Ural, near the Caspian sea, and in the mountains of Hircania.—This species lives in pairs, or in families consisting of a male and a female with their young ones; and of these families vast numbers live together, the whole country being covered with little hills of earth thrown out of their burrows. They feed mostly on tulip roots, and are preyed on by weasels, polecats, crows, and otters. The head is thick, with a blunt dusky nose; the limbs are short and strongly made; the head and body are somewhat more than three inches long, the tail only half an inch, and very slender. This animal swarms chiefly in spring, and rarely appears in autumn, at which season it is supposed to migrate, or to take shelter among the bushes.

29. Rambling Mouse.—27. *Mus lagurus*. 29.

Has hardly any tail; the ears are shorter than the fur; the fore feet have each three toes

toes and the rudiments of a fourth; the upper parts of the body are ash coloured mixed with dusky, and having a black line along the back. Pallas, Glir. 77. n. 12. and p. 210. t. xiii. A. Schreber, iv. 684. t. cxciii.

Hare-tailed Moufe. Penn. hist. of quad. n. 320. Arct. zool. n. 66.—Dihilkis-Zizchan, Mus vagus, or Rambling Moufe. Pallas, It. ii. 704.

Inhabits the deserts near the rivers Ural, Irtysh, and Jenisei.—Each individual forms a round nest of dried grass in a burrow, having an oblique and a perpendicular entrance. They feed chiefly on the dwarf iris, but eat all kinds of grain, and devour other species of this genus, and one another; they sleep very much, in a rolled up form, and are very slow in their motions, like the Marmot, but do not become torpid in winter: This species is very falacious; the males fight together for the females, and the conqueror generally devours the vanquished; the female smells of musk when in season, produces several times in the year, and brings five or six young ones at a birth: They migrate in great troops, whence the name of rambling mice, which is given them by the Tartars. The head is long, with rough and swelling lips; the limbs are short and slender; the tail is so short, as scarcely to appear beyond the fur, which is very full and soft; the upper parts of the body are ash coloured, mixed with dusky, and having a dusky line along the middle of the back; the belly and feet are pale ash colour; the length of the body and head is between three and four inches; the tail of the male is somewhat longer than that of the female.

503

30. Collared Moufe.—28. *Mus torquatus*. 30.

Has a very short tail; the ears are shorter than the fur; the feet have each five toes; the fur is ferruginous, varied with grey, yellow, and dusky, having a whitish collar round the neck, and a dark line along the back. Pallas, Glir. 77. n. ii. and p. 206. t. xi. B. Schreber, iv. 686. t. cxciv.

Ringed Moufe. Penn. hist. of quad. n. 318. Arct. zool. i. 137. E.

Inhabits the northern parts of the Uralian mountains, and the marshes near the frozen ocean.—Feeds chiefly on the Lichen rangiferinus, Lichen nivalis, and Polygonus viviparus; these articles of food are stored up in burrows, having numerous passages, which it digs under the turfy soil. This species is migratory, and resembles the next in its manners. The nose is blunt; the legs are short and strong, and the feet are covered on the soles with fur, having very strong hooked claws on the toes; the fur on the whole body is very fine, of a ferruginous colour on the upper parts of the body, mixed with grey and yellow, sometimes pale grey, and undulated with dusky rust colour; from the ears down each cheek is a bed of dusky, then a ring or collar of white round the neck, and behind that another dusky patch; the head and body are a little more than three inches long; the tail is dusky, hardly one inch long, and has a tuft of hard bristles at the end, which is blunt.

504

31. Lemming.—29. *Mus Lemmus*. 5.

Has a very short tail; the ears are shorter than the fur; the feet have each five toes; the body is variegated with tawny and black on the upper parts, and is white underneath. Pallas, Glir. 77. n. 10. and p. 186. t. xii. A. B. Schreber, iv. 687. t. cxcv. a. β.

Moufe,

Moufe, of a tawny colour varied with black; having a very fhort tail, and five toes on each foot. Syft. nat. ed. xii. i. 80. Faun. Suec. ii. n. 29. Act. Stockh. 1740, 75. f. 45.—*Mus Lemmus*. Fabric. It. Norweg. 191.—*Mus norwegicus*, Norwegian Moufe, or Lemming. Raj. quad. 327. Worm. Muf. 321.—*Cuniculus norwegicus*, or Norwegian Coney. Briff. quad. 145. n. 5.—*Lemmus*. Gefn. quad. 731. Ol. Mag. Sept. 617.—*Leem*. Aldrov. dig. 436. Jonft. quad. 168.—*Lemming*. Pontop. Norw. ii. 58. Sm. Buff. vii. 316.—*Lemmus Rat*. Penn. hift. of quad. n. 317. Arét. zool. i. 136. C.—*Lapland Marmot*. Penn. fyn. of quad. 274. n. 202. t. 25. f. 2. Worm. hift. anim. Norweg.—Its anatomy. Bartholin. cent. ii. p. 301.

Inhabits the mountains of Norway and Lapland.—They feed on grafs, the catkins of the dwarf birch, the Lichen rangiferinus, or Rein-deer Liverwort, and other fuch vegetable productions; in fummer they form fhallow burrows under the turf, and in winter they make fimilar long paffages under the fnow in queft of food; for, as they do not lay up magazines, and do not hybernate, they are obliged to feek provifions in the rigorous winter of thefe northern climes. When they forefee, by fome wonderful inftinct of nature, the approach of a very fevere winter, they leave their northern haunts in autumn, and emigrate in immense multitudes into the lower parts of Norway and Sweden, keeping a ftraight line in fpite of every obftacle, moving moftly in the night time, and making prodigious havock of every vegetable they are able to reach. In this journey, which takes place at uncertain intervals, though generally about every ten years, they are deftroyed by eagles, hawks, foxes, and other animals of prey, and numbers are drowned in paffing rivers, or lakes, which never interrupt their courfe, even proceeding on into the fea; from all thefe concurring caufes very few live to return to their native mountains, and thus a check is put to their ravages, as it takes years to repair their numbers fufficiently for another invafion. They are bold and fierce, fo as even to attack men and animals, if they meet them in their courfe, and bite fo hard as to allow themfelves to be carried a confiderable way, hanging by their teeth to a flick, before they will quit their hold.

The head is pointed, having very long whifkers, fix of the hairs on each fide being longer and ftronger than the reft; the mouth is fmall, having two very long fore-teeth in each jaw, and the upper lip is divided; the eyes are fmall and black; the ears are fmall, rounded, and reclined backwards; the fore legs are very fhort, having four flender hairy toes on each, and a long fharp claw, like a cock's fpur, in place of the fifth or thumb; the hind feet have five toes; the fkin is very thin, and the upper parts of the body are black and tawny, difpofed in irregular blotches; the belly is white, tinged with yellow: The female breeds feveral times a year, producing five or fix young ones at a birth.

β. Siberian Lemming.—*Mus Lemmus fibiricus*.

Of a fmall fize, and more uniform tawny colour.

Inhabits the northern parts of the Uralian chain of mountains, and on the river Oby.—This fpecies or variety of the Lemming is confiderably fmall than the one juft defcribed: The colour is lefs diversified, being chiefly tawny; and it differs greatly in manners; for it lays up in its burrows large ftokes of provifions to ferve during winter. From this latter circumftance, it is probable that the Siberian Lemming, though this is not mentioned, does not migrate like the former, or Norwegian kind.

506

32. Labradore Moufe.—30. *Mus hudsonius*. 31.

The tail is very fhort; has no external ears; the feet have each five toes; the back is marked with a dusky ftripe, and each fide with a yellowifh tawny line; the breast and belly are whitifh. Pallas, Glir. 209. Schreber, iv. 691. t. cxcvi.

Hudfon's Moufe. Penn. hift. of quad. n. 319. Arct. zool. n. 64.

Inhabits the country of Labradore.—The muzzle is furnifhed with flender brown whifkers; the fur is very foft and fine; the upper parts are of an afh colour, tinged with tawny on the back, having a dusky line along the fpine, and a pale tawny ftripe along each fide; the belly is of a pale afh colour; the limbs are very fhort, and the fore feet are ftrongly made, having the two middle claws of the male very ftrong and divided at the end; the claws of the fkins which, from being fmall, are fuppofed to belong to the females, are fmall; the tail is very fhort, and is terminated with a tuft of fteff briftles; the body and head meafure about five inches.

507

33. Lena Moufe.—*Mus lenae*.

Of a white colour: Has a fhort tail thickly covered with coarfe hair; fhort rounded ears; five toes before and four behind. Penn. Arct. zool. i. 137. D.

Mus Gmelini. Pall. nov. fp. an. 195.

Inhabits the borders of the Icy Sea, efpecially where the Lena falls into it.—The body and head meafure a little more than three inches, the tail not quite one; the body, which is thick, broad, and equal, is covered with longifh fur, which is afh coloured at the roots, and white at the ends; the cheeks are afh coloured, and the chin dusky: The claws on the fore feet are white, and very ftrong; thofe on the hind feet are much weaker. This fpecies appears and difappears fuddenly; it feeds on the roots of different moffes, and is preyed on by the Arctic foxes; it probably extends to the river Jenifei, as in that diftrict two forts of Mice are found, one, in all probability this, is entirely white, and the other, probably the Lemming, is black, yellow, and white.

508

34. Kamtschatka Moufe.—*Mus Tschelag*.

Of a fmall fize, but not fufficiently defcribed. Penn. Arct. zool. i. 138. F.

Tschelagatchitch. Defcr. of Kamtschatka, 392.

Inhabits Kamtschatka.—Frequents the houfes, and is fo bold that it takes away any thing and eats it quietly at the door.

*** HAMSTERS.—*CRICETI* *.

Having pouches in the cheeks, and fhort hairy tails.

509

1. Siberian Hamfter.—32. *M. Cricetus Acredula*. 33.

Has large, oblong, oval, furrowed ears; the upper parts of the body are of a yellowifh
and

* Called *Murex buccati*, in the *Syftema Naturae*.

and brown ash colour, the under parts hoary. Pallas, Glir. 86. n. 22. and p. 257. t. xviii. A. Schreber, iv. 695. t. cxcvii.

Mus migratorius, or Migrating Moufe. Pallas, It. ii. 703. n. 5.—Yaik Moufe. Penn. hist. of quad. n. 326.

Inhabits the district of Orenburgh in Siberia, near the Yaik or Ural.—The snout is thick, with a blunt nose, and very fleshy lips, the upper one being deeply divided; the upper fore-teeth are small, yellow, convex, and truncated, the lower ones are pointed and slender; the eyes are large; the tail is very short and cylindrical, of a brown colour above, and white beneath; the legs are white; the body and head measure about four inches, and the tail not quite one. This animal lives in burrows, which it quits only in the night to seek for food: The Cossacks say that it migrates out of the deserts in vast multitudes; but Dr Pallas suspects this to be a mistake.

510

2. German Hamster.—33. *M. Cricetus germanicus*. 9.

Has large rounded ears; the head and back are of a reddish brown colour, the belly, breast, and upper part of the fore legs, black; the sides are reddish, and marked with three white spots. Penn. hist. of quad. n. 324. pl. xlvii. f. 1.

Mus Cricetus, or Hamster, having cheek pouches; the lower parts of the body extremely black, with bare patches on the sides. Pallas, Glir. 83. n. 21. Schreber, iv. 695. t. cxcviii. A. Syst. nat. ed. Gmel. 137. n. 9.—Moufe with a short tail; rounded ears; the lower parts very black; and the sides reddish, with three white spots. Syst. nat. ed. xii. i. 82.—Glis, f. Marmota argentoratenfis, or Strasbourgh Marmot, of a reddish ash colour on the back, having a black belly, and three white spots on the sides. Brissl. quad. 166.—Glis Cricetus. Klein, quad. 56. Agric. subf. 486. Gefn. quad. 738. Raj. quad. 221. Clauder, E. N. C. dec. iii. n. 5. p. 376.—Porcellus frumentarius. Schwenckf. ther. 118.—Hamster. Sm. Buff. vii. 178. pl. ccxx. Meyer, Thire. fol. 1748. Norib. t. 81. 82. S. G. Gmelin, It. i. 33. t. 6. Sulzer, Verf. Naturg. des Hamsters, 1773, Gotha.—German Marmot. Penn. Syn. n. 200.—Hamster Rat. Penn. hist. of quad. n. 324.

511

β. Black German Hamster.—33. β. *M. Cricetus german. niger*.

Is entirely black, except the tip of the nose, edges of the ears, and the feet, which are white. Penn. hist. of quad. p. 462. pl. xlvi. f. 2.

Cricetus niger, or Black Hamster. Lepechin, It. i. 192. t. 15. Pallas, It. i. 128. Georgi, It. ii. 851. Sulzer, Naturg. des Hamst. fig. in titulo. Schreber, iv. t. cxcviii. B.

Inhabits Siberia, the south of Russia, Poland, Slavonia, Hungary, Silesia, Bohemia, and Germany beyond the Rhine, especially in Thuringia.—Each individual forms a subterraneous burrow, consisting of several chambers, with two holes or entrances leading from the surface; one of these is perpendicular, and the other, in which the excrements are lodged, is oblique; the holes of the females have several perpendicular openings, and each young one of her family is lodged in a separate chamber: The chambers which are set apart for the lodging of themselves and young are lined with straw or grass; the rest are larger, and are appropriated for containing magazines of grain, beans, pease, lint-feed, vetches, and other such feeds, each in a separate cell, sometimes a hundred pounds weight in the

whole: The chambers of the older animals are dug several feet deep, while those of the younger ones seldom exceed one foot under the surface. During summer the Hamsters live on herbs, fruits, and roots, and, in autumn, are very destructive to grain; for, besides eating large quantities, they carry it off to their magazine in their cheek-pouches, which are so stuffed that they seem ready to burst, each being able to contain about an ounce and a half at once; they are particularly fond of places where liquorice grows, and feed much on its seeds; they seldom eat flesh or devour other animals. Except during the time of courtship, the males and females have no intercourse; but at that season the female defends the male with great fury, though she shows very little affection for her young; when two males meet about one female, they fight bitterly, and the female forms a short connection with the conqueror; at all other times they reject society with each other, and even fight, kill, and devour their own species. Their pace is very slow, and they do not climb; but they dig with vast quickness, and will gnaw through a piece of wood, an inch and a half thick, in a very short time. They are preyed on by polecats, weasels, cats, dogs, foxes, and birds of prey, and are proscribed by man, on account of their devastations; in one year, about eleven thousand skins, in a second, fifty-four thousand, and in a third year, eighty thousand, were brought to the town-house of Gotha, to receive a reward for their destruction; the peasants even search for their stores, on account of the provisions they contain, and their skins form an article of trade; they are likewise destroyed by means of a paste formed of honey and flour boiled up with arsenic, or powdered hellebore. At the approach of winter, they retire into their burrows, shutting up the entry with great care, and feed on their collected provisions, till the weather grows severe, when they become torpid. The first commerce between the males and females is about the end of April; but they breed two or three times a year, the females, which have eight teats, go about a month with young, and produce, when young, three or four, afterwards from six to nine, and even sixteen or eighteen, at a litter.

The males are about ten inches long, and the tail about three, but the females are scarcely more than half so large; the former weigh from twelve to sixteen ounces, while the latter seldom exceed from four to six ounces: The head is thick, with a blunt nose, and numerous whiskers, large full black eyes, and large, rounded, open ears; usually the head and back are of a reddish brown colour, with red cheeks; the sides are paler, with three white spots; the breast, upper part of the fore legs, and belly are black; the feet are large and white, having four toes, and a claw instead of a fifth toe, on the fore feet, and five toes on each hind foot: The colour varies; sometimes, though rarely, they are found entirely white, or yellowish, or white with black spots on the back; sometimes the snout is white, and the fore-head ash coloured, or the lower jaw of a white colour.

3. Sand Hamster.—34. *M. Cricetus arenarius*. 34.

The upper parts of the body are hoary; the sides, belly, limbs, and tail, are pure white.

Pallas, Glir. 36. n. 24. and p. 265. t. xvi. A. and It. ii. 704. n. 7. Schreber, iv. 707. t. cxcix.

Sand Rat. Penn. hist. of quad. n. 328.

Inhabits the sandy deserts of Baraba, on the river Irtysh, in Siberia.—The head is large, with a longish snout, and a sharp nose, having very long whiskers, very large pouches, and great oval brownish ears; the body is short and thick, being about four inches long, and the tail rather more than one; the fur is very soft; the fore feet have only four toes each, the hind feet five, all the claws being white. This animal is very fierce and untameable, it forms burrows, like the preceding species,
lining

lining the nest with the *Elymas arenarius* and other dried plants ; it is chiefly active at night, and is fond of leguminous plants, particularly the *Astragalus tragacanthoides*.

513

4. Rice Hamster.—35. *M. Cricetus phaeus*. 35.

The upper parts of the body are of a hoary ash colour, with long dusky hairs along the back ; the sides whitish ; the circumference of the mouth, breast, belly, and extremities of the limbs, are pure white. Pallas, Glir. 86. n. 23. and p. 261. t. xv. A. Schreber, iv. 708. t. cc.

Zarizyn Rat. Penn. hist. of quad. n. 327.

Inhabits about Zarizyn in the deserts of Siberia, and in the mountains of the north of Persia.—This species does vast mischief in the rice fields : It is about three inches and a half long, and the tail not quite one ; the fore-head is much elevated ; the edges of the eye-lids are black ; the ears are large, oval, almost naked, and projecting, being clothed slightly with a dusky fur ; the tail has a dusky line along its upper part. This animal is often caught in traps during winter, near stables and other out-houses, and never becomes torpid.

514

5. Songar Hamster.—36. *M. Cricetus songarus*. 36.

The upper parts of the body are of a grey ash colour, marked with a black line along the back ; the sides of the head and body are varied with large white and dark brown spots ; the feet and belly are white. Pallas, Glir. 86. n. 25. and p. 269. t. xvi. B. and It. ii. 703. n. 6. Schreber, iv. 709. t. cci.

Songar Rat. Penn. hist. of quad. n. 329.

Inhabits the desert of Baraba, near the Irtysh, in Siberia.—This species likewise digs chambers for the reception of provisions : It is about three inches long, with a very short, thick, blunt, and hairy tail, little more than one-third of an inch in length ; the head is thick, with a blunt nose, and the whiskers are shorter than the head ; the ears are oval, very thin, long, and covered slightly with a hoary down ; each of the feet has four toes, and a knob, without any claw, in place of the fifth ; this animal is not so fierce as some other species of the Hamsters, but may be tamed when caught young, and grows very familiar.

515

6. Baraba Hamster.—37. *M. Cricetus Furunculus*. 37.

The upper parts of the body are of a cinereous yellow, with a black streak on the back ; the under parts dirty white. Pallas, Glir. 86. n. 26. Schreber, iv. 710. t. ccii.

Baraba Rat. Penn. hist. of quad. n. 330.—*Mus barabensis*. Pallas, It. ii. 704. n. 8.—*Mus furunculus*, or Thievish Rat. Pall. nov. sp. fasc. i. 273. t. xv. A.—*Furunculus myodes*. Messerschmid, Mus. Petrop. 343. n. 109.

Inhabits Dauria, Siberia in the desert of Baraba, towards the Ob, between the Onon and Argum, and in the Chinese empire near lake Dalai.—This species is about three inches long, and the tail near
one ;

one; it resembles the Sand Hamster a good deal; the nose is sharp, with large, broad ears, of a dusky colour, edged with white; the tail is small and pointed, of a white colour, and is marked above with a dusky line; the feet have four toes, and a knob furnished with a claw instead of the thumb or fifth toe. It lives chiefly on the seeds of the *Astragalus* and *Atriplex*; but its manners are unknown.

*** MOLE-RATS.—*MYOTALPÆ*.

Have no external ears, very small eyes, and a very short tail, or none. They live entirely under ground, like the Moles *.

516

1. Russian Mole-Rat.—38. *M. Myotalpa talpina*. 38.

Of a dusky colour: Has a very short tail, and no external ears; the fore-teeth are long, extended from the mouth, and wedge-shaped; the feet have five toes; the fore feet are very strong, flat, and formed for digging. Pallas, Glir. 77. n. 9. and p. 176. t. xi. A. and Nov. com. Petrop. xiv. 568. t. 21. f. 3. Schreber, iv. 711. t. cciii.

Spalax minor, or Lesser *Spalax*. Erxleb. mam. 379.—Talpine Mole-Rat. Penn. hist. of quad. n. 335.

517

β. Black Russian Mole-Rat.—*M. Myotalpa talpina nigra*.

Is entirely black. Penn. hist. of quad. p. 475.

Inhabits the plains of Russia and Western Siberia, scarcely extending beyond the Irtysh, and never beyond the Oby.—This animal is fond of a turfy soil, avoiding sandy or muddy places, and digs holes like those of the Hamster, which it lines with soft grass, and fills with bulbous roots, throwing up hillocks of earth all along the tracks; each individual has its separate burrow: It works only in the night, and seldom comes out except in the season of love; feeds chiefly on the roots of Tulips, tuberose Lathyrus, and tuberose Phlomis. Its sight is very weak in the day time: It is about four inches long, and resembles the Water Rat; has a large short head, with a thick snout, and truncated nose; the eyes are very small, and hid in the fur; the aperture of the ears is only bounded by a small rim behind; the body is thick and short; the tail scarce appears beyond the fur; the head, nose, back, and sides, are dusky, the cheeks greyish, the chin white, and the belly and limbs whitish. It procreates about the beginning of April, at which time it smells strongly of musk; and the females produce three or four young at a litter.

518

2. Cape Mole-Rat.—39. *M. Myotalpa capensis*. 39.

Of a dark brown colour tinged yellowish, with the fore part of the face, orbits, and regions of the ears, white: Has a very short tail, and no external ears; the fore-teeth are wedge-like; and all the feet have five toes. Pallas, Glir. 76. n. 8. and p. 172. t. vii. Schreber, iv. 713. t. cciv.

Cape

* The animals of this subdivision of the genus are named *Mures subterranei*, by Dr Gmelin; but the word *Myotalpa* is preferred in this edition, as being better adapted for the purpose of a subgenus.—T.

Cape Hamster. Kolb. Verg. d. gut. Hofn. 158.—Mole of the Cape of Good Hope. Sm. Buff. iv. 315. pl. lxxxviii.—Cape Mole-Rat. Penn. hist. of quad. n. 334. pl. xlvii. f. 3.

Inhabits the Cape of Good Hope.—This species infests the gardens; It is about five inches and a half long, having a round head, thick neck, and blunt snout; the hair of the body is pretty long, of a dark brown colour, tipped with yellow; the whole region of the mouth and nose, the circumference of the eyes, a longitudinal spot on each ear, and on the nape of the neck, are white; the lower parts of the body and limbs are pale; and the short tail, or stump, is covered with long yellowish white hairs; the inner toe of each fore foot is very short, the two next are very long, the fourth shorter, and the outer toe is very short.

519

3. African Mole-Rat.—40. *M. Myotalpa maritima*. 40.

Of a pale brownish ash colour mixed with yellowish on the upper parts, the sides and under parts paler: Has a very short tail, and no external ears; and all the feet have five toes. Schreber, iv. 715. t. cciv. B.

Zand-moll. Mafon, Phil. Transf. lxvi. P. i. 304.—Cape Mole. La Caille journ. 299.—Taupe des dunes, or Mole of the sand hills. Allamand's ed. of Buff. suppl. v. 24. t. x.—African Mole-Rat. Penn. hist. of quad. n. 333.

Inhabits the sand hills adjacent to the sea at the Cape of Good Hope.—This species resembles the former, but is much larger, measuring twelve or thirteen inches long, and the head is more lengthened; it forms burrows in the sand, like those of Rabbits, which it digs with surprising celerity; it runs slowly, is very fierce, and bites severely; it feeds chiefly on the roots of *Ixiae*, *Antholyzae*, *Gladioli*, and *Irides*. The head is large, with a black nose, flattened and wrinkled at the end; the eyes are small, and almost hid in the fur; the lower fore-teeth are long, and it is said the animal possesses the power of moving them farther out at pleasure; the fore feet have four toes with very long claws, and a distinct thumb with a short claw, the soles being naked and provided with two large tubercles; the hind feet are large, very long, and naked, having five toes with short claws, and is rested on as far as the heel; the tail is flattened, covered on its upper and under surfaces with short hair, and fringed at the edges with very long bristles horizontally disposed. Is reckoned good eating.

520

4. Daurian Mole-Rat.—41. *M. Myotalpa Aspalax*. 41.

Of a dirty yellow ash colour on the upper parts, and whitish ash on the lower: Has a very short tail, and no external ears; the feet have each five toes, the claws of the fore feet being very long. Pallas, Glir. 76. and 165. t. x. and It. iii. 692. Schreber, iv. 716. t. ccv.

Mus myospalax. Laxmann, Sibir. brief. 75. Act. Stockh. 1773.—Daurian Mole-Rat. Penn. hist. of quad. n. 332. pl. xlvii. f. 2.

Inhabits Dauria, and in Siberia beyond the Irtysh between the Alei and Tscharysch rivers.—This animal digs very long burrows in the black turfy soil or firm sand, throwing up numerous hillocks, which extend over a considerable surface; it works both with its feet and nose, and sometimes with
its

its teeth. It feeds chiefly on the roots of the *Lilium pomponii*, *Erythronium*, and other bulbous plants. This species varies in size, those of Dauria being near nine inches long, while those farther east are scarcely six. The head is thick and flat, with a short snout and blunt nose; the eyes are very small and deep seated; the body is short and flattened, having very strong limbs, especially the fore feet, on which the claws are long, strong, and slightly bent; the fur is dusky at the roots, and some individuals have a white line on the hinder part of the head; the tail is short, round, blunt, and almost naked.

521

5. Blind Mole Rat.—42. *M. Myotalpa Typhlus*. 42.

Of a reddish ash colour: Has no tail, external ears, or apparent eyes; the feet have each five toes; and the fore-teeth are broad. Pallas, *Glir.* 76. n. 6. and p. 154. t. viii. Schreber, iv. 718. t. ccvi.

Mouſe, of a reddish ash colour, having no tail or external ears, and very minute eyes. Lepechin, It. i. 238. and Nov. com. Petrop. xiv. 504. t. 15. f. 1.—*Spalax microphthalmus*, or with very small eyes. Guldenstaedt, Nov. com. Petrop. xiv. 409. t. 8. 9.—*Spalax major*. Erxleb. mam. 377.—Slepez. S. G. Gmelin, It. i. 131. t. 22.—Blind Mole-Rat. Penn. hist. of quad. n. 331. pl. xlvii. f. 1.—Podolian Marmot. Penn. Synopf. n. 204.—Zemni. Sm. Buff. viii. 232.

Inhabits the southern parts of Russia, from Poland to the Volga.—Each individual forms burrows under the turfy soil, of very considerable extent, with many lateral passages, and throws out the earth at different distances, in large hillocks, sometimes two yards in circumference, and proportionally high. This species works with its snout, feet, rump, and even with its teeth, and digs with great celerity, especially when frightened, in which case it digs directly downwards. When irritated, it snorts, gnashes its teeth, raises its head in a menacing posture, and bites with great severity. It feeds on roots, especially those of the bulbous *Chaerophyllum*. It is entirely blind, though it has the rudiments of very small eyes which are covered over with a continuation of the skin; but it possesses the senses of touch and hearing in a very eminent degree, to make up for the loss of sight. The body and head measure between seven and eight inches, and weigh eight ounces; the head is very large, broad, and flattened, with a blunt nose, covered at the end with a thick, naked, black skin; the mouth is continually gaping, with short wrinkled fore-teeth above, and very long ones below, likewise furrowed or wrinkled, none of them being hid by the lips; the body is cylindrical, and covered with short, soft, and close set fur, which is of a dusky colour at the bottom, with the ends of a rusty brown mixed with ash colour; the space about the mouth and nose are white; the legs are very short, having five toes on each foot armed with short claws, and slightly connected by a short membrane at their bases. It breeds in spring and summer; and the female, which has two teats, brings from two to four young ones at a birth.—This is perhaps the only species of warm blooded animal which is deprived by nature of the sense of seeing, supposing that there is no mistake in the information of travellers respecting its utter blindness.—T.

XXVII. M A R M O T.—25. *A R C T O M Y S*.

Has two wedge-like cutting teeth in each jaw; five grinders above, and four below, on each side. Has collar bones.

This

This genus is very properly separated from that of *Mus* by Dr Gmelin, in imitation of Mr Pennant. Most, if not all, of the species hibernate, or grow torpid, during winter: They go about in quest of food, and carry on their other necessary avocations, during the day time, feeding on roots and grain; they are capable of climbing, and dig burrows in the earth for their habitations: Their heads are generally round and convex, having either very short ears or none; their bodies are thick, with short hairy tails; the fore feet have each four toes and a very short thumb, or fifth inner toe, and the hind feet have each five toes. The *cæcum*, or blind gut, is generally very large.

522

1. Common Marmot.—1. *Arctomys Marmota*. 1.

Has short round ears; the upper parts of the body are dusky brown, and the lower parts reddish. Schreber, iv. 722. t. ccvii.

Mus Marmota, with a round convex head, having short external ears, a short hairy tail, and four toes on each fore foot; the upper parts of the body dusky brown, and the lower parts reddish. Pallas, Glir. 74. n. 1.—Having a short hairy tail, somewhat hairy ears, and swelling cheeks. Syst. nat. ed. xii. 81. n. 7.—*Mus alpinus*, or Alpine Mouse. Gefn. quad. 743. f. p. 744. Aldrov. dig. 445. Raj. quad. 221. Jonst. quad. t. 67. Agric. Subt. 484. Plinii, viii. c. 37.—*Mus montanus*, or Mountain Mouse. Mathiol. comm. 368.—*Glis alpinus*, f. *Marmota alpina*, of a mixed dusky brown and yellowish. Briff. quad. 165. n. 6.—*Glis Marmota*, of a brownish ash colour on the upper parts of the body, and yellowish ash below. Erxleb. mam. 358. n. 1. Klein. quad. 56. Hist. mur. alp. 230.—*Marmotte*. Sm. Buff. iv. 339. pl. xcvi.—Alpine Marmot. Penn. hist. of quad. n. 258.

Inhabits the highest summits of the Alps and Pyrenean mountains, in dry places where there are no trees.—Feeds on insects, roots, and vegetables, particularly on tender plants of the order of grasses; but, when tamed, eats almost of every thing, and is very fond of milk, which it laps, making a murmuring noise; it drinks very little. The Alpine Marmots live together in societies of five, nine, twelve, or fourteen, are fond of basking in the sun, and place a centinel, which gives a whistle on perceiving the approach of danger, when they instantly retire into their holes, or, if they cannot escape, they defend themselves boldly, and bite with great fury. They form burrows provided with numerous passages and entrances; in the end of September they retire into their subterraneous chambers, which are well lined with moss and dry grass, and, stopping up the entrance with earth, they remain in a torpid state of hibernation till the month of March: If dug up while in this state, and brought into a warm atmosphere, they revive gradually. They are able to walk on their hind feet, sit up often on their haunches, and carry food to their mouths with their fore feet. They are easily caught when on plain ground, but with difficulty in their holes, as they dig deeper when in danger of being taken, except in winter, when torpid, at which time they are caught in great numbers, partly on account of their flesh, which is tender and delicate, partly for their skins, and partly for their fat, which is esteemed medicinal by the inhabitants of the Alps; but they are chiefly taken by the Savoyards for the purpose of being exposed as shows through various parts of Europe. In a tame state, they are very destructive to all kinds of provisions, clothes, linens, or furniture; and can hardly be prevented, even in warm chambers, from falling into the torpid state in the winter time. They procreate in April or May, and the female, after six or seven weeks, produces two, three, or four young ones.

The body is thick and short, with a large thick head, flattened at the top, and having a thick blunt nose, which is often carried erect when the animal sits; the two bones of the lower jaw are moveable on each other; the ears are short, round, hairy, and almost hid in the fur; the cheeks are covered and surrounded with long hair; the muzzle has seven rows of whiskers; above and below each eye is placed a black wart, on the former of which are six, and on the latter, seven, bristly hairs; the legs are short, and the conical thumbs of the fore feet have each a dusky flat nail; the tail is straight, and is covered with long hairs: The fur on the upper part of the body is of a brownish ash colour, mixed with tawny yellow; the sides are paler, and the lower parts reddish, having a future or parting of the hair, all along the belly, from the throat to the anus; the tip of the tail is very dark brown, almost black: The body and head measure sixteen inches, and weigh nine pounds; the tail is about six inches long.

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2. Monax.—2. *Arctomys Monax*. 2.

Has short rounded ears; the nose and cheeks are bluish; the body is of a deep brown colour; the tail is longish, and very hairy. Schreber, iv. 737. t. ccviii.

Mus griseus, of a dark brown grey colour, with a bluish nose; having a convex head, external ears, and four toes on the fore feet. Pallas, Glir. 74. n. 2.—Mouse, of a brown ash colour; having a hairy tail of a middle length, roundish ears, four toes before and five behind. Syst. nat. ed. xii. 81. n. 8.—Glis fuscus, Marmota americana, or American Marmot, of a brown colour, with a bluish ash coloured nose. Briff. quad. 164. n. 5.—Glis Monax, with a brown body, the sides and belly of a paler colour. Erxleb. mam. 361.—Monax. Edw. av. ii. t. 104. Sm. Buff. iv. 346. pl. xcvi.—Maryland Marmot. Penn. hist. of quad. n. 260. Arct. zool. n. 44.

Inhabits the warmer states of North America, and the Bahamas.—This species, in America, forms holes in the clefts of rocks and under the roots of trees, in which it passes the winter in a torpid state; but it is uncertain if those of the Bahamas hibernate, as the climate of these islands is very mild. The head is not so thick and large as in the former species, and the snout is somewhat lengthened, the nose and cheeks being of a bluish ash colour; the ears are short and rounded; the eyes are black and prominent; the feet and legs are black, having long sharp claws; the tail is half the length of the body, and is covered with longish dusky hairs. This animal is about the size of a Rabbit; it feeds on vegetables; and its flesh is very good, resembling that of a Pig.

524

3. Bobak.—3. *Arctomys Bobac*. 3.

Of a greyish colour, mixed with long dusky hairs on the upper parts of the body, the under parts yellowish: Has small oval ears; a hairy tail; and the fore feet have each a claw in place of the thumb or fifth toe. Schreber, iv. 738. t. ccix.

Mus Arctomys, with a rounded head, having external ears; the tail short and hairy; a claw on each fore foot in place of the inner, or fifth toe; the upper parts of the body grey, and the under parts yellowish. Pallas, Glir. 75. 97. 98. t. 5.—Glis Marmotta polonica, or Polish Marmot, of a yellowish colour, with a reddish head. Briff. quad. 165.—Bobak. Rzaczinski, hist. nat. Polon. 235. Sm. Buff. vii. 198. pl. ccxxi. Forster, Phil. Transf. lvii. 343. Penn. hist. of quad. n. 262. Arct. zool. i. 115. A.

Inhabits

Inhabits the dry and sunny places of the mountains, from the Boristhenes, through the temperate climes of Asia, as far as China and Kamtschatka.—The Bobak forms very deep burrows, in which societies of twenty or more live together, each individual having a particular nest at the bottom of the common gallery, which is often three or four yards deep, and from which numerous galleries, or passages, branch off to the several apartments. They go about in search of food, in the morning and middle of the day, placing a sentinel to give warning of approaching danger. It is a timid animal, which feeds only on vegetables, preferring olleraceous plants; it sits up on the hams, and carries its food with the fore paws to its mouth, and defends itself in the same posture; may be easily tamed, even when old, and then eats cabbages or bread, and laps milk, but refuses to drink water. In summer it feeds voraciously, but remains torpid all winter, except when kept in very warm places, and even then eats very little, and escapes, if possible, that it may get to some place proper for hybernating, and returns to its master in spring. The flesh may be eaten, and resembles that of a Hare, though rank; the fat is used for dressing leather and furs, and the skins are employed for clothing by the Russians. The head and body measure sixteen inches, the tail is straight, and about four and a half inches long, and the whole animal sometimes weighs fourteen pounds. The female has eight teats, and probably brings forth early, as, by the month of June, the young ones are half grown. The ears are small, thick, oval, and covered with greyish white down, having longish hairs at the edges; the eyes are small; the whiskers short: About the eyes and nose the fur is of a dusky brown colour, growing reddish among the whiskers; the upper parts of the body are greyish, intermixed with long dusky or black hairs, which have grey or whitish tips; the throat is of a rusty colour; the rest of the body and inside of the limbs are of a yellowish rusty brown; the tail is slender, full of hair, marked with dusky rings, and is tipped with black.

4. Canadian Marmot.—4. *Arctomys Empetra*. 4.

Of a mixed grey colour on the upper parts of the body, the lower parts orange; having short rounded ears, and a hairy tail. Schreber, iv. 743. t. ccx.

Mus Empetra, of a mixed colour on the back and reddish on the belly; having a rounded head provided with external ears, a short hairy tail, and four toes on each fore foot. Pallas, Glir. 75. n. 4.—Glis canadensis, of a grey colour, with orange coloured belly and thighs. Erxleb. mam. 363.—Quebec Marmot. Penn. hist. of quad. n. 259. pl. xli. f. 2. Arct. zool. n. 43.—Canadian Marmot. Forster, Phil. Transf. lxii. 378.

Inhabits Canada, Hudson's Bay, and the other northern parts of America.—This species is rather larger than a Rabbit, and the tail is about two inches and a half long; the head is round, with a blunt nose, and short rounded ears; the cheeks are full, and of a grey colour; the face is dusky, with a black nose; the hair on the back is grey at the roots, black in the middle, and whitish at the tips; the belly and legs are of an orange colour; the tail is short, somewhat bushy, and of a dusky colour; the feet are black and naked, having four long, slender, divided toes, and the rudiments of a thumb on each fore foot, and five similar on each behind, all armed with pretty strong claws. This animal was described by Mr Pennant from a living specimen in possession of Mr Brooks, which was very tame, and made a hissing noise.

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5. Hoary Marmot.—5. *Arctomys pruinosus*. 5.

Has very coarse, long, hoary fur; whitish cheeks, a black nose, and black legs; having short oval ears. Penn. hist. of quad. n. 261. Arct. zool. n. 45. Lev. Mus.

Inhabits the northern parts of America.—This animal is about the size of a Rabbit; the nose is black at the tip; the ears are short and oval; the cheeks are whitish, and the crown of the head is mixed with tawny and dusky; the fur on the body is long and harsh, being ash coloured at the bottom, black in the middle, and whitish at the tips, giving a hoary appearance; the legs and feet are black, having four toes on each fore foot, and five behind, all armed with dusky claws; the tail is black, and mixed with rust colour.

527

6. Soufflik.—*Arctomys Suffica*.

The upper parts of the body are of a yellowish brown colour interspersed with numerous small white spots; the ears are very short; the tail is hairy, and about the length of the thighs. Sm. Buff. viii. 234. pl. ccxc.

Casan Marmot. Penn. synopf. p. 273.

Inhabits Casan, and as far as Austria.—Dwells in the desert, digging holes in the black soil of the declivities of the mountains; these burrows are seven or eight feet long, are dug in a winding form, and have several entries; at the bottom are several apartments, in which stores of corn, pease, lint-feed, hemp-feed, and other grains and feeds are collected, each kind in separate cells; besides these they have separate holes for living in: During summer they feed on grains, herbs, roots, and young mice. The body and head of this species are somewhat more lengthened than in the other species of this genus, and about the size of a large Rat; the ears are short and rounded; the face, breast, belly, and legs are of a pale yellow colour; the tail is covered with short yellowish brown hair; the fore feet have four toes, armed with long claws, and a short thumb, or rudiment of a fifth toe; the hind feet have five toes each, the two outer ones short, and the other three long.

528

7. Zisel.—*Arctomys Citillus*.

Is of an uniform dark cinereous grey colour; has no external ears, a blunt nose, a long slender body, and a very short tail. Sm. Buff. viii. 229.

Earless Marmot. Penn. hist. of quad. n. 263. pl. xlii. f. 1. Arct. zool. n. 47.

Inhabits Hungary, Austria, and Poland.—This species burrows like the former, than which it is rather larger, being near a foot long.

529

8. Zemni.—*Arctomys Zemni*.

Of a mouse-grey colour; has short rounded ears; five toes on all the feet; and very minute eyes concealed beneath the fur. Sm. Buff. viii. 232.

Podolian Marmot. Penn. Synopf. p. 277.—Zitz-jan. Le Brun, voy. Muscov. ii. 402.—Little Earth-dog. Rzaczinski, hist. nat. Pol. 325.

Inhabits

Inhabits Russia and Poland.—This species is larger, stronger, and more mischievous, than the Zifel. The head is thick, with short rounded ears; the body is slender, and covered with short, soft fur; the tail is of a moderate size; the fore-teeth are very large, and project much from the mouth, the under ones being much longer than the upper; the feet are all divided into five toes, armed with crooked claws; the body is about the size of a Squirrel, and in manners and dispositions it resembles the Zifel. It bites cruelly, and eats voraciously of grains, fruits, and pot herbs, laying up magazines of provisions in its burrows, where it passes the winter.

These three last described animals, the Souflik, Zifel, and Zemni, are all supposed to be of the same species by Dr Gmelin, and are included under one description, as follows, Syft. nat. ed. Gmel. i. p. 144. n. 6.; but, on the authority of Buffon and Pennant, they are separated in this edition.—T.

Arctomys Citillus, of a variable colour, having a hairy tail, and no external ears. Schreber, iv. 746. t. cxxi. A. B.—*Mus citillus*, of a variable colour, having a convex head, no external ears, and a short hairy tail. Pallas Glir. 76. 119. t. vi. vii. B.; and Nov. com. Petrop. xiv. 549. t. 21. f. 1. 2.—Mouse, of an ash colour, having no external ears, and a short tail. Syft. nat. ed. xii. i. 80. n. 4.—*Mus Suflica*. Guldensædt, Nov. com. Petrop. xiv. 389. t. 7.—*Mus Noricus*, f. *Citillus*. Agric. Subt. 485. Gefn. quad. 835. Raj. quad. 220. Rzacz. Pol. 235. D' auct. 327. Schwenkf. Sil. 86. Aldrovand. dig. 436. Erxleb. mam. 366.—*Cuniculus germanicus*, or German Coney, of a grey colour, having a tail, but no external ears. Briff. quad. 147. n. 6.—*Orientalischer Hamster*, or *Oriental Hamster*. S. G. Gmelin, It. 30. t. 5.—*Casan Marmot*, *Earle's Marmot*, and *Podolian Marmot*. Penn. synopf. of quad. p. 273. n. 201. and n. 203. t. 25. f. 1.—*Zifel*, and *Souflic*. Buff. hist. nat. loc. cit.

Inhabits the southern parts of Russia as far as Kamtschatka, and the islands between Asia and America; in Persia and China, and is now rarely found in the rest of Europe.—Dwells in open, high, dry, and uncultivated places, preferring turfy and loamy soils, near the high roads, and never frequents bogs or woods. Each individual has its separate burrow, in which, for provision in the beginning and end of winter, it lays up magazines of grain, tender vegetables, and berries; sometimes, though rarely, the carcases of mice and small birds are added; in the middle of winter it lies torpid during the greatest severity of the frost; the burrows of the females are dug deeper than those of the males: From the very beginning of spring, as soon as the weather becomes mild, they go out in the day time in quest of food, which they eat sitting on their haunches, carrying it in their fore paws to the mouth. The male is very easily tamed, but the female is fiercer, more given to bite, and is less easily made tame; she goes between three and four weeks with young, and brings forth from three to eight young ones about the beginning of May. The fur is very good in the spring, and the flesh is reckoned tolerable. They are preyed on by polecats, weasels, hawks, carrion-crows, and cranes.

This animal varies considerably both in size and colour, being sometimes as large as the Common Marmot; and sometimes not larger than the Water Rat: In general the colour is of a yellowish ash on the upper parts, and dirty white on the belly*; sometimes it is variegated either with waves or small spots of white†; some are white on the upper parts, and waved with tawny or yellow, being pale yellow on the lower parts of the body, and having a longish tail, with shed hair like that of a

Squirrel.

* This uniform variety is evidently the Zifel of Buffon.—T.

† The variety which is spotted with white is the Souflik of Buffon.—T.

Squirrel; others are of a grey colour on the upper parts of the body spotted with white *, the under parts being of a yellowish white, with white orbits, and the face, between the eyes and the nose, of a brownish yellow, with a short tail. Perhaps this animal is the *Mus Ponticus* of Aristotle and Pliny.—Gmel.

530

9. Gundi.—7. *Arctomys Gundi*. 7.

Of a brick-dust red colour, with wide, open ears, which appear as if cropt, or cut off. Rothman, apud Schloezer, briefw. i. 339. Pallas, Glir. p. 98. note.

Gundi. Penn. hist. of quad. n. 264.

Inhabits Barbary, near Massufin, towards mount Atlas.—This species is about the size of a small Rabbit; the tail is short; the upper fore-teeth are large and truncated, the lower ones slender and pointed; it has four toes, armed with claws, on all the feet, and uses the sole in walking as far as the heel.

531

10. Hudsons Marmot.—*Arctomys hudsonia*.

Of a brown ash colour; with short external ears and no tail.

Taillefs Marmot. Penn. hist. of quad. n. 265. Arct. zool. n. 46. Lev. Mus.

Inhabits Hudsons Bay.—Has two cutting teeth above, and four in the lower jaw: The hairs are tipped with white.

532

11. Chilese Marmot.—*Arctomys maulina*.

Of a reddish brown colour, with sharp ears, having five toes on all the feet. Molina, hist. Chil. 268.

Mus maulinus. Syft. nat. ed. Gmel. 137. n. 32.

Inhabits the woods of the province of Maule in Chili.—This quadruped is arranged by Dr Gmelin in the Murine genus; with a hint, however, that it more probably belongs to the genus of Marmots: It agrees with the Common Marmot in the colour and length of the hair, but is nearly twice as large; the snout is long-shaped, having four rows of whiskers; the feet have all five claws; and the tail is furnished rather thinly with hair.

XXVIII. SQUIRREL.—27. *SCIURUS*. 25.

Has two fore-teeth in each jaw, those above being wedge-like, and the under ones sharp pointed; there are five grinders
above,

* This variety is probably the animal mentioned by Buffon, viii. 348. under the name of Kamtschatkan Marmot, which resembles at a distance the variegated plumage of a beautiful bird; uses its fore feet in eating, and feeds on roots, berries, and a kind of nut, called Cedar-nuts.—T.

above, and four below, on each side. It has perfect collar bones. The hair on the tail is usually shed to both sides.

The animals of this genus are, in general, elegantly formed, and very quick in all their motions, especially in climbing trees, and skipping about from branch to branch; a few of the species burrow under ground; they live mostly on the fruits, nuts, and seeds of trees and vegetables: Their bodies are in general tolerably thick, having broad heads, with long oval ears, and short legs; the fore paws have each four toes, with the rudiments of a thumb, and the hind feet have five distinct toes; the tails are long, and clothed with long hair, which, for the most part, sheds out on both sides from the middle, both above and below, forming a broad thin shade, which the animal carries over his back, protecting both against the sun and rain. Most of the species are easily tamed, and become frolicsome, but bite harshly when teased; they use the soles of the hind feet in walking, as far as the heel, and skip by leaps, rather than walk, when on plain ground; they sit up on their hind legs, when feeding, and hold their food with their fore paws. Some species of this genus are provided with hairy membranes, extended from the fore to the hind legs, by means of which they are enabled to bear themselves for a little time in the air, when leaping from one tree to another; from this circumstance the genus is very properly broken into two subdivisions, distinguished by the want or the possession of this membrane.

* Climbing Squirrels.—*Sciuri scandentes*.

Which have no membranes extended from leg to leg.

1. Common Squirrel.—1. *Sciurus vulgaris*. 1.

The ears are terminated with long tufts of hair, and the tail is of the same colour with the back. Erxl. mam. 411. Schreber, iv. 757. t. ccxii.

Squirrel, having four toes before and five behind, with long tufts of hair at the tips of the ears. Syst. nat. ed. xii. i. 86. n. 1.—Common Squirrel. Raj. quad. 214. Penn. hist. of quad. n. 266. Arct. zool. i. 122. A. BRIT. ZOO. i. 93. Gefn. quad. 845. Aldrov. dig. 396. f. p. 398. Jonst. quad. 163. t. 66. Schwenkf. ther. Sil. 121.—Eichhoernlein. Ridinger, jagd. th. t. 20. S. G. Gmelin, It. i. 37. t. 7. Falk, Beyt. iii. 311.—Ecureil, or Squirrel. Sm. Buff. iv. 268. pl. lxxx.—Ikorn, or Graskin. Faun. Suec. n. 37.—Wiewiorka. Rzaczinski. hist. nat. Pol. 225.—The anatomy. E. N. C. cent. 10. app. 449.

α. Red Common Squirrel.—*Sc. vulg. rufus*.

The head, body, legs, and tail, are of a bright reddish brown colour; the breast and belly white.

Common red Squirrel, sometimes mixed with grey. Briff. quad. 150. n. 1.—*Sciurus vulgaris rubicundus*, or Common reddish Squirrel. Klein, quad. 53.

Is found all over Europe and the temperate climes of Asia.

534 β . White-tailed Common Squirrel.—*Sc. vulg. leucourus*.

As the former, with a pure white tail. Penn. hist. of quad. p. 406.

Common in many parts of England, and is very beautiful.

535 γ . Varying Common Squirrel.—1. β . *Sc. vulg. varius*.

In winter of a bluish ash colour; in summer red, with a white belly. Erxl. mam. 414. α .

Sciurus varius, or Varying Squirrel of a whitish ash colour. Briff. quad. 152. n. 4. Aldrov. dig. 403. f. p. 405.—Squirrel, called *Mus ponticus*, and Varying Squirrel, on account of its changing colours at different seasons. Jonst. quad. 163. Gefn. quad. 741.

Found in Sweden, Lapland, and other cold countries.

536 δ . Black Common Squirrel.—1. γ . *Sc. vulg. niger*.

Of a uniform black colour. Erxleb. mam. p. 415. β . Lever. Mus.

Inhabits about Lake Baikal.

537 ϵ . White Common Squirrel.—1. δ . *Sc. vulg. albus*.

Of an entire white colour, with red eyes. Erxl. mam. p. 416. γ .

Sciurus albus sibiricus, or White Siberian Squirrel. Briff. quad. 151. n. 2.—*Sciurus albus*, or White Squirrel. Wagn. Helv. 185. S. G. Gmelin, It. i. 35. t. 8.

Inhabits Siberia.

538 ζ . Silvery Common Squirrel.—*Sc. vulg. argenteus*.

Is larger than the ordinary varieties, and of a glossy silver grey colour. Penn. hist. of quad.

Teleutskaya Belka, or Squirrel of the Teleutian Tartars. Muller, Samlung. Ruff. vii. 124.

Is found about the upper parts of the river Oby; and is as large again as the Common Grey Squirrel of these parts.

The several varieties of the Common Squirrel inhabit the whole of Europe, and the northern temperate parts of Asia.—It lives always in woods, is a handsome, active, and lively animal, which climbs trees with great agility; it makes a nest of moss and dried leaves, at the fork or junction of two branches, leaving two holes at opposite sides, and keeps that hole shut which is towards the wind: It feeds on nuts, acorns, fruits, berries, and other vegetable productions, laying up magazines for winter, and in summer feeds on buds, young cones, and tender shoots, especially those of the fir; drinks little, and in winter eats snow in place of drink: It sits up on its hind legs, and shades itself with its tail, which it carries over the back and head; and uses its fore paws for carrying its food to the mouth: It leaps to a surprising distance; and is said, when inclined to pass a river, to use a piece of bark

bark as a boat, erecting its broad tail to the wind as a sail. The skins are esteemed a valuable fur, especially when caught in winter, and the flesh is reckoned very good. It procreates in March or April, and the female, after a month, brings forth from three or four to seven young ones, and breeds twice a year. In spring the females are seen skipping from tree to tree, as if endeavouring to avoid the embraces of the male. They are preyed on by the martin, and other animals of the *Mustela* and *Viverra* tribes, by serpents, and by birds of prey.

539

2. White-legged Squirrel.—*Sciurus albipes*.

The ears are slightly tufted with black hair; the upper parts of the body are reddish brown, the under parts and legs white, and the tail dusky. Penn. hist. of quad. n. 266. γ. Brit. Mus.

Inhabits Ceylon, according to the Catalogue in the British Museum.—The head, whole upper part of the body, sides and toes, are reddish brown; the face, nose, under side of the neck, inside of the ears, breast, belly, fore legs, and inside of the hind thighs, are white; the tail is long, and covered with dusky hair, which is much shorter than in the common kind.

540

3. Black Squirrel.—2. *Sciurus niger*. 2.

Of a black colour, with plain ears. Erxleb. mam. 417. Schreber, iv. 776. t. ccxv.

Sciurus niger, or Black Squirrel. Syft. nat. ed. xii. i. 86. Klein, quad. 53. Briff. quad. 582. Catesb. Carol. ii. 73. t. 73. Penn. hist. of quad. n. 273. Arct. zool. n. 50.—Quahtechalotl thlihtlic, *Sciurus Mexicanus*, or Mexican Squirrel. Hernand. mex. 582. Fernand. nov. hisp. 8.

541

β. White-nosed Black Squirrel.—*Sc. niger albirostris*.

Has plain ears: Of a black colour marked with white on the nose, neck, and extremity of the tail. Penn. hist. of quad. n. 273. pl. xliii. f. 2.

Inhabits North America, Mexico, and New Spain; Mr Pennant says likewise in the north of Asia.—Is of the same size with the common species, but has a shorter tail; it lives in large troops, and makes terrible havock among the maize or Indian corn.

542

4. Vulpine Squirrel.—3. *Sciurus vulpinus*. 8.

Of a large size, and ruddy colour, mixed with black and dirty white, having plain ears. Penn. hist. of quad. n. 273. β.

Fox Squirrel, called likewise Cat Squirrel by the planters. Lawfon, Carolin. 124.

543

β. White Vulpine Squirrel.—*Sc. vulp. albus*.

Of a white colour, with the throat, and inside of the legs and thighs black. Penn. hist. of quad. p. 411.

Inhabits Virginia.—Grows to the size of a small Rabbit; the fur is coarse; the throat and insides of the legs and thighs are black; the tail is much shorter than that of the Common Squirrel; is of a dull yellow colour, mixed with black, and reddish at the tip, as are the ears.

544 5. Grey Squirrel.—4. *Sciurus cinereus*. 3.

Of a grey colour, with a white belly; and having plain ears. Erxleb. mam. 418. n. 3. Schreber, iv. 776. t. ccxiii.

Sciurus virginianus, or Larger grey Virginian Squirrel. Syft. nat. ed. xii. i. 86. Raj. quad. 215. Klein; quad. 53. Briff. quad. 153. n. 6. Brown, Jamaica, 483.—Grey Squirrel. Catesby, Carol. iii. 74. t. 74. Penn. hist. of quad. n. 272. pl. xliii. f. 3. Arct. zool. n. 49.—Petit gris, or Grey Squirrel. Sm. Buff. v. 321. pl. cxliii.

Inhabits North America, Peru, and Chili.—Is of the size of a small Rabbit, of a dull grey colour, mixed with black, and often tinged with dirty yellow, having a long, bushy, grey tail, striped with black. This species is very like the Common Squirrel, but larger, being a foot in length, and thicker made; it builds its nest in the hollows of trees, and does great damage to the fields of Indian corn, inasmuch that the government gives a premium for their destruction; this, in one year, at Pennsylvania, at three pence each, amounted to eight thousand pounds currency; consequently 640,000 must have been destroyed that year. They form magazines under ground of provisions for winter, and, in severe snow storms, they are sometimes famished in vast numbers, by having their access to these cut off. The fur of this kind, under the name of *Petit gris*, is reckoned valuable for linings to cloaks. They are preyed on by the Rattle-snake.

545 6. Labradore Squirrel.—5. *Sciurus hudsonius*. 12.

Of a ferruginous colour along the back, the sides paler, and the belly ash colour mottled with black; the tail is like the back, but barred with black, and tipped with the same; the ears are plain. Penn. Lev. Mus.

Sciurus hudsonius, or Hudson's Bay Squirrel, with plain ears, reddish grey on the back, the belly ash colour, having a shortish tail of a reddish grey colour, edged with black. Syft. nat. ed. Gmelin. 143. n. 12. Forster, Phil. Transf. lxii. 378. Pall. Glir. 377. Schreber, iv. 777. t. ccxiv.—Hudson's Bay Squirrel. Penn. hist. of quad. n. 274. pl. xliii. f. 1. Arct. zool. n. 48.

Inhabits the pine forests in Labradore, and round Hudson's Bay.—Is smaller than the Common Squirrel, and apt to vary in colour, especially to greyish, which accounts for the difference between the description given by Mr Pennant from a specimen in the Leverian Museum, and that quoted by Dr Gmelin from the Philosophical Transactions, though the latter author says that it retains the same colour throughout the year.

546 7. Carolina Squirrel.—6. *Sciurus carolinensis*. 13.

Of a grey colour, mixed on the head, back, and sides, with white and rust colour; the belly is white, divided from the sides by a rusty line; the tail is brown, mixed with black and edged with white; the ears are plain.

Carolina Squirrel. Penn. hist. of quad. n. 274. *α*.—Lesser grey Squirrel. Penn. synopf. n. 209.

α.

Inhabits Carolina.—This species is less than the Common Squirrel, and, like the former, is apt to vary to a more complete grey.

547

8. Virginian Squirrel.—*Sciurus virginianus*.

Has coarse fur of a mixed dirty white and black colour.

Cat Squirrel. Penn. Arct. zool. n. 49. *β*.

Inhabits Virginia.—This animal is about the same size with the Grey Squirrel, of which Mr Pennant supposes it to be a variety; the tail is shorter than in most species of the genus, and is of a dull yellow colour, mixed with black; the throat and insides of the legs and thighs are black.

548

9. Persian Squirrel.—7. *Sciurus persicus*. 14.

Of a dark colour, with white sides and a yellow belly; the tail is black mixed with ashy colour, and marked with a white ring; the ears plain. S. G. Gmelin, It. iii. 379. t. 43.

Inhabits the high mountains of Hyrcania in Persia.—This resembles the common species in general appearance and manners, but differs in the colour, which is not subject to variation: The soles of the feet are reddish.

549

10. Georgian Squirrel.—8. *Sciurus anomalus*. 15.

Of a yellow colour mixed with dusky on the upper parts and tail; the under parts of a dull tawny; the ears plain and rounded. Guldenstaedt. Schreber, iv. 781. t. ccxv. C.

Inhabits Georgia in Asia.—This species is larger than the Common Squirrel; the circumference of the mouth is white, the tip of the nose black, the cheeks tawny, the whiskers and region of the eyes dusky, and the ears flame yellow, whitish within.

550

11. Javan Squirrel.—9. *Sciurus bicolor*. 16.

The upper parts of the body are black and the under parts tawny; the thumbs are provided with large rounded flat nails; the ears are plain, hairy, and sharp pointed. Sparrman, Act. soc. Goth. i. 70. Schreber, iv. 781. t. ccxvi.

Javan Squirrel. Penn. hist. of quad. n. 269.

Inhabits the island of Java.—The body and head are about a foot long, and the tail of the same length; Mr Pennant adds, that the tail is tipped with black, and says the under parts are of a light brown colour. The hind feet are black; the claws of the fore feet are sharp, except the nail on the fifth toe; and the thumbs are very short.

551 12. Ruddy Squirrel.—10. *Sciurus erythraeus*. 17.

Of a yellow colour, mixed with dusky, on the upper parts; the under parts blood red mixed with tawny; the tail of this last colour, with a longitudinal blackish stripe; and the ears slightly tufted at the edges. Pallas, Glir. 377. Penn. hist. of quad. n. 271.

Inhabits India.—Is rather larger than the Common Squirrel; the fore paws have each a large protuberance in place of a thumb or fifth toe.

552 13. Ceylon Squirrel.—11. *Sciurus macrourus*. 18.

The tail is of a light grey colour, and twice the length of the body. Erxleb. mam. 420. Schreber, iv. 783. t. ccxvii.

Sciurus zeylonicus, or Ceylon Squirrel, with black hair on the back, called Rukkaia by the natives on account of its voice. Raj. quad. 215.—Long-tailed Squirrel. Penn. Ind. zool. t. 1.—Ceylon Squirrel, or Dandoelana. Penn. hist. of quad. n. 267.

Inhabits the island of Ceylon.—This species is three times the size of the Common Squirrel. The ears are tufted with black hairs; the fore-head, back, sides, and haunches are black; the legs and belly yellow; the cheeks are yellow, marked with a bifurcated black stroke, and red at their lower parts; and between the ears is a yellow spot: The tail is twice as long as the body, of a light grey colour, and very bushy; the root being surrounded with hair, while that on the rest lies flat, and separates sideways.

553 14. Malabar Squirrel.—12. *Sciurus maximus*. 19.

Of a red brown colour on the upper parts, the under parts and tail black; the ears slightly tufted. Schreber, iv. 784. t. ccxvii. B.

Large Malabar Squirrel. Sonneret, voy. ii. 139. t. 87.

Inhabits the Malabar coast, and the province of Mahe in India.—This species is about the size of a large Cat; has small erect ears, long hair, strong black claws, and a very small protuberance, in place of the thumb, or fifth toe, on the fore paws, provided with a flat nail: It feeds chiefly on the milk of the Cocoa-nut; and has a loud sonorous voice. Dr Gmelin is uncertain whether this be a distinct species, or only a variety of the last.

554 15. Abyssinian Squirrel.—13. *Sciurus abyssinicus*. 20.

Of a rusty black colour on the back, the fore feet and belly grey; the tail a foot and a half long. Thevenot, It. v. 34. Penn. hist. of quad. n. 268.

Is said to inhabit Abyssinia.—This animal is but obscurely known; it was purchased by Thevenot, at Moco in Arabia, from an Abyssinian; it is thrice the size of the common species, and the nose and soles of the feet are flesh coloured; it was good natured and sportive, eat of every thing but flesh, and cracked the hardest almonds. This animal is probably, like the former, a variety of the Long-tailed or Ceylon species.

555

16. Bombay Squirrel.—14. *Sciurus indicus*. 21.

Of a dull purple colour on the upper parts of the body, the lower parts yellow, and the tail tip with orange; the ears tufted. Erxleb. mam. 420. Penn. hist. of quad. n. 270.

Inhabits India near Bombay.—The head, back, sides, and upper parts of the legs and thighs are dull purple; the belly and lower parts of the legs yellow: The head and body measure sixteen, and the tail seventeen inches. This species is described, by Mr Pennant, from a stuffed specimen in Dr Hunter's museum.

556

17. Fair Squirrel.—15. *Sciurus flavus*. 4.

Of a flaxen or pale yellowish colour, with plain rounded ears, and a round tail.

Squirrel, with a round tail, short hair, and roundish ears. Amoen. acad. i. 281. Syst. nat. ed. xii. 86.—Fair Squirrel. Penn. hist. of quad. n. 276. Della Valla, 84.

Inhabits the woods near Ahmadabad, the capital of Guzerat, in India; according to Linnaeus, it is found likewise near Carthagena in South America.—Is of a very small size, not above half as big as the common species; the fur is yellowish, with white tips to the hairs; the fore feet have each a very small claw, or nail, instead of a thumb or fifth toe: It is very agile in leaping about from one tree to another. Dr Gmelin doubts if this animal should be considered as belonging to the genus; but gives no opinion of what other genus it should be referred to.

557

18. Palm Squirrel.—16. *Sciurus palmarum*. 5.

Of a mixed black and red colour, with three longitudinal yellow stripes on the back and sides; the tail is encircled with coarse dirty yellow hair, and is barred with black. Schreber, iv. 802. t. ccxx.

Sciurus palmarum, *Mus palmarum*, Palm Squirrel, or Palm Mouse, of a mixed red and black colour, having yellow longitudinal stripes on the back. Brissl. quad. 156. n. 10.—*Mutella africana*, or African Weasel. Clus. exot. 112. Nieremb. hist. nat. 172. Jonst. quad. 153. Raj. quad. 216.—Palmiste, or Palm Squirrel. Sm. Buff. v. 328. pl. cxliv.—Palm Squirrel. Penn. hist. of quad. n. 279.

Inhabits the hotter regions of Asia and Africa.—This species lives much on the Cocoa trees, feeding on the nuts, and is very fond of the Sury, or palm wine, which is made from that tree; from which circumstance the Dutch in India give it the name of Suriscatsjie*, or Little Cat of the Sury. This is a very small animal, scarcely three inches in length; the tail is much of the same length, and is.

* Under this name, or one very nearly resembling it, we have already described an animal of the genus *Viverra*, or Fitchet, the Surikate, or *Viverra pentadactyla*; the English name of that species, used in this publication, is adopted from Buffon, though it appears from the above circumstance, recorded by Mr Pennant, on the authority of Governor Loten, that the name Surikate, which is evidently a corruption of Suriscatsjie, should more properly be applied to the Palm Squirrel; but, as it has become familiar to English readers in the works of Buffon, it is allowed to remain.—T.

is carried erect, but does not shade the back; the ears are short, broad, not tufted, but fringed with hair at the edges; an obscure pale yellow stripe runs along the back, one similar on each side, and other two, one on each side, lower down, but these are at times so very faint as to be scarce perceptible; the hair on the head, back, and sides, is of an intimately mixed black and red, on the thighs and legs it is redder, and on the belly pale yellow. Clusius, and Mr Ray, following him, alledge that, though the hair in general encircles the tail, the animal has the power of expanding it sideways.

558

19. Barbary Squirrel.—17. *Sciurus getulus*. 6.

Of a reddish ash colour on the upper parts of the body, with two longitudinal white stripes on each side. Schreber, iv. 806. t. ccxxi.

Sciurus getulus, or Barbary Squirrel, of a mixed black and red colour, with alternate longitudinal stripes on each side of white and dusky, or black. Briff. quad. 157. n. 11. Aldrov. dig. 405. f. p. 406. Gesh. quad. 112. Jonst. quad. 163. t. 67. Raj. quad. 216.—Barbarian Squirrel. Edw. av. iv. t. 198.—Barbary Squirrel. Penn. hist. of quad. n. 280.—Barbaresque, or Barbary Squirrel. Sm. Buff. v. 331. pl. cxlv.

Inhabits Barbary.—This animal resembles the former in appearance and manners, and is considered by Mr Pennant only as a variety; it is, however, rather larger, measuring five inches long: The belly is white; the tail is bushy, and regularly marked with alternate shades of black and reddish ash colour; the fore paws have only four toes, with no vestige of a thumb, and all the claws are black.

559

20. Plantane Squirrel.—*Sciurus Badjing*.

Of a pale red-chestnut colour, with a yellow stripe along each side. Penn. hist. of quad. n. 280. γ.

Inhabits Java and Prince's island.—This animal resembles the Common Squirrel, though lighter coloured; it is called Badjing by the Malays, and lives much among the Pitang, or Plantane, and on the Tamarind trees; it is very shy, and, on the approach of mankind, runs off, making a vast pattering over the dry leaves of these trees. Mr Pennant considers it as a variety of the Palm Squirrel.

21. Ground Squirrel.—18. *Sciurus striatus*. 7.

Of a yellowish colour, with five longitudinal dark stripes.

Striped Dormouse. Penn. hist. of quad. n. 286. Arct. zool. n. 54.

560

α. Asiatic Ground Squirrel.—18. α. *Sc. striatus asiaticus*.

Of a smaller size than the next variety.

Sciurus striatus, or Striped Squirrel. Pallas, Glir. 378. Georgi, It. i. 163.—*Sciurus major variegatus*, Larger variegated Squirrel, or *Furunculus sciuroides*, of Mefferichmidt. J. G. Gmelin. Nov. com. Petrop. v. 344. t. 9.—Bomdoeskje. Le Brun, It. 432. t. 254.

561

β. American Ground Squirrel.—18. β. Sc. str. americanus.

Of a pale colour, with four dusky stripes on the sides. Mus. ad. Fr. i. 8. Schreber, iv. 790. t. ccxix.

Sciurus carolinensis rufus, or Reddish Carolina Squirrel, having longitudinal black stripes alternating with whitish yellow ones, on the back and sides. Briss. quad. 155. n. 9.—Lyster's Squirrel. Raj. quad. 216.—Ground Squirrel. Lawson, Carol. 124. Catesby, Carol. ii. 75. t. 75. Bricknell, Carol. 129. Edw. av. iv. t. 181.—Roesslvisla. Kalm, It. ii. 419.—*Ecureil Suisse*. Charlevoix, Nouv. Fr. iii. 134.—*Suisse*, or Ground Squirrel. Sm. Buff. v. 330. pl. cxlvi.

The Asiatic variety inhabits the whole north of Asia, from the Dwina and Kama rivers eastwards.—It lives chiefly on the seeds of trees, especially those of the *Pinus cembra*; and is about five inches and a half long. The American variety inhabits the less frigid regions of North America, as far as New Spain.—It dwells mostly in the woods, but never ascends trees unless when it cannot otherwise escape from pursuit; it forms burrows under ground in the same manner with the Hamster, and, like that animal, is provided with pouches in the cheeks; in these burrows, which are formed with great ingenuity, having long branched galleries leading to several apartments, it stores up provisions for winter, placing Maize, Acorns, Hickery nuts, Chinquapin chefnuts, and other articles, all in separate chambers. It lives mostly on grain, and is very destructive to corn fields; bites severely, is very wild, and can scarcely be tamed. This variety is somewhat longer than the Asiatic, being near six inches long from the snout to the origin of the tail.

The head of the Ground Squirrel is more lengthened than that of the other species; the ears are naked, rounded, and very short; the body thin and lengthened; the legs and feet are short; the fur is short and harsh. That described by Mr Pennant, from a specimen in the Leverian Museum, is the American variety; the head, body, and tail are of a reddish brown colour; the back is marked with a longitudinal black stripe, each side with a pale yellow stripe, bounded both above and below by a black line; the breast and belly are white; the nose and feet pale red; and the eyes are large and full. If the winter stores in its holes happen to fail, it digs into cellars for apples, and into barns for corn, doing a great deal of mischief; it is hunted after by cats with great avidity.

562

22. Brazilian Squirrel.—19. *Sciurus aestuans*. 9.

Of a dusky colour tinged with yellowish on the upper parts of the body; the inside of the legs and belly yellow; with a white stripe along the middle of the belly; the tail is round, and annulated with black and yellow. Penn. hist. of quad. n. 277.

Brazilian Squirrel. Marcgr. Bras. 230.

563

β. Striped Brazilian Squirrel.—Sc. aest. fasciatus.

Of a mixed dusky and yellow colour, with white stripes on the sides, and a black tail. Briss. quad. 154. n. 7.

Inhabits Brasil and Guiana.—The ears are plain and roundish; the fur is soft; the head and body measure somewhat more than eight inches, and the tail ten.

564

23. Carnatic Squirrel.—20. *Sciurus dschinschicus*. 22.

Of a brick-dust red colour, with white stripes on the sides, and white orbits; having a black tail. Sonneret, It. ii. 140.

Inhabits the province of Dschinschi * in India.—This species is larger than the Common Squirrel.

565

24. Varied Squirrel.—21. *Sciurus variegatus*. 23.

The head and upper parts of the body are varied with black, white, brown, and orange; and the belly is yellow. Erxleb. mam. 421. Schreber, iv. 789. t. ccxviii.

Quauhtecallotlquapachtli, ur Cozticotequallin. Fernand. nov. Hisp. 9.—Coquallin, or Varied Squirrel. Sm. Buff. vii. 176. pl. ccxix.—Varied Squirrel. Penn. hist. of quad. n. 275.

Inhabits Mexico and New Spain.—Dwells in burrows, and in holes under the roots of trees, laying up winter magazines of maize and other grain: It is near twice the size of the Common Squirrel, being about a foot long; the ears are short and plain, and, with the circumference of the mouth, are white; the whiskers and claws are black.

566

β. Smaller Varied Squirrel.—*Sciurus variegatus minor*.

Mr Pennant informs us that he has seen a variety of this species, not larger than the Common Squirrel, the fur of which on the upper parts of the body was brown, orange, and ash coloured, with an orange coloured belly.

567

25. Chilese Squirrel.—22. *Sciurus Degus*. 24.

Of a dusky yellow colour, with a black line on the shoulders. Molina, hist. nat. Chil. 269.

Inhabits Chili.—This species dwells in large societies, burrowing under ground, and feeding on roots and fruits, of which it lays up magazines for winter provision. It resembles the White Dormouse, but does not become torpid in winter; in size it is rather larger than the Black Rat, having a short head and sharp snout; the ears are rounded; the tail is bushy at the end, and is of the same colour with the body. The flesh is eaten by some of the natives.

568

26. Mexican Squirrel.—23. *Sciurus mexicanus*. 25.

Of a dusky ash, or mouse-colour, with five or seven longitudinal white stripes along the back and tail. Erxleb. mam. 428. n. 12.

Sciurus novae hispaniae, or Squirrel of New Spain, of a dusky ash colour marked with white stripes on the back. Briff. quad. 154. n. 8.—*Sciurus rarissimus*, or Rare Squirrel, from New Spain, striped

* It is difficult to guess what part of India is meant by this, unless Gingee in the Carnatic, the spelling being taken from the sound, as pronounced in the German language.—T.

striped with white. Seba, Mus. i. 76. t. 47. f. 2. 3.—Tlametotli. Fernand. nov. hisp. 9.—Mexican Squirrel. Penn. hist. of quad. n. 278.

Inhabits Mexico and New Spain.—The male has seven white lines along the back, and the female only five: The scrotum of the male is large and pendulous. This species is not quite six inches long, and the tail is somewhat longer; the ears are naked at the edges.

369

27. American Squirrel.—*Sciurus scrotalis*.

Of an uniform colour, with a large pendulous scrotum. Seba, Mus. i. 76. t. xlviii. f. 5. Penn. hist. of quad. p. 414.

Inhabits with the former.—This animal is mentioned only incidentally by Mr Pennant as a variety of the former; the manners of both are unknown.

570

28. Cayenne Squirrel.—*Sciurus bancrofti*.

Of a pale yellowish brown colour on the upper parts; the sides and belly white; the tail very long, hairy, and spotted. Bancroft, Guiana.

Inhabits Guiana.—This animal resembles the Common Squirrel in size and general appearance.

571

29. Guiana Squirrel.—*Sciurus guajanensis*.

Of a small size and reddish colour. De la Borde, voy.

Inhabits Cayenne.—This animal is fierce, and bites severely, in its natural state, yet may easily be tamed; it is not larger than a Rat, and lives in a solitary manner in the woods, residing on trees, and feeding on the seeds of the Maripa, Aura, and Comana; the female produces two young ones at a time only once a year. These two last animals are but obscurely known, and are mentioned by Dr Gmelin only in a note, leaving it to future inquiry to determine more precisely their place in system, and to describe more accurately their manners and external marks.

572

30. Madagascar Squirrel.—24. *Sciurus madagascarensis*. 29.

The middle toe, on the fore feet, is very long and naked; the thumb, or fifth inner toe, on the hind feet, has a flat rounded nail.

Aye-aye. Sonneret, It. ii. 137. t. 86.

Inhabits the eastern side of the island of Madagascar.—This animal is rather doubtful in its nature; in the slowness of its pace, and general manners, it resembles the Sloth; but in the form of its tail, and the number and form of its toes, five on each foot, and the number and arrangement of its teeth, it is more nearly allied to the Squirrel: It lives in holes under ground; is slothful, timid, and sleeps much; it feeds chiefly on worms, which it extracts from the hollows of trees by means of its toes. The ears, are large, flattened, black, and covered thickly with rough hair; the face is garnished with bunches of hair above the eyes, on the nose, and cheeks, and under the chin; the fur is of two sorts,

an under downy fleece, like wool, of a whitish or pale tawny, with longer straight black hairs intermixed; the face and throat being of a pale whitish tawny colour; the tail is flattened, and about eighteen inches long, covered with thick set white hair from the base to the middle, and the rest black; the toes on the fore paws are all long, and four of the claws on the hind feet are hooked and sharp pointed.

573

31. Cape Squirrel.—*Sciurus capensis*.

Of a pale ferruginous colour on the upper parts of the body, mixed with black; with a white line from the shoulder along each side; the tail is black in the middle and hoary at the sides; the ears are scarcely apparent.

Earle's Dormouse. Penn. hist. of quad. n. 290.

Inhabits near the mountain of Sneeborg, eight hundred miles north from the Cape of Good Hope.—This species never climbs trees, but burrows in the ground, forming a warm nest, with a round hole, in which it lodges, closing up the orifice; it feeds on bulbous roots, especially potatoes; it is very tame, and never offers to bite, walks often on its hind feet, frequently lies flat on its belly, and often flirts up the tail. The head is flat, with a blunt nose, full black eyes, divided upper lip, and long whiskers; the belly and feet are dirty white, and there is a white line above each eye; the toes are long and distinct, with a large knob on each fore foot in place of a thumb; the claws are long; the hind legs are black and naked behind. It is about the size of the Common Squirrel, but much broader and flatter in its make.

** FLYING-SQUIRRELS.—*PETAURI* *.

Have a hairy membrane extended from the fore to the hind legs, adapted for flying.

574

1. American Flying-Squirrel.—25. *S. Petaurus volucella*. 26.

Of a brownish ash colour on the upper parts, the belly white tinged with yellow; the tail is flattened, broadest at the middle, and ends in a point. Penn. hist. of quad. n. 283. Arct. zool. n. 51.

Sciurus volucella, or Flying Squirrel, with moderately broad membranes, and a long hairy tail. Syft. nat. ed. Gmel. 153. n. 26. Pallas, Glir. 353. 359. Schreber, iv. 808. t. ccxxii. Mus ad Fr. ii. 10.—*Sciurus minimus*, or Smallest Squirrel, with membranes connecting the fore and hind feet together, having a white belly. Brown, Jamaic. 438.—American Flying-Squirrel. Raj. quad. 215.—*Mus volans*, or Flying Mouse. Syft. nat. ed. xii. p. 75. n. 21. Mus. ad Fr. ii. 10.—Quimichpatlan. Fernand. nov. hisp. 8.—Flying Squirrel. Catesby, Carol. ii. 76. t. 77. Edw. av. iv. t. 191. Sm. Buff. v. 309. Du Pratz, Louisiana, ii. 98. Kalm, It. i. 321. t. 1.—Aflapanick. Smith, Virgin. 27. Jocelyn, voy. 86. De Laet. 88. Lawfon. virgin. 124.

Inhabits

* In the Naturalist's Miscellany, Dr Shaw very properly distinguishes these animals, and the flying Macaeco, or Colugo, into a particular genus, under the name of *Petaurus*, which is here adopted instead of *Sciuri volantes*, employed by Linnaeus and Gmelin.—T.

Inhabits the temperate and warmer parts of North America.—Lives in societies in the woods, feeding on fruits and seeds, which it goes in quest of chiefly in the evening and night, and during the day sleeps almost constantly in its nest, which is formed of leaves. This species, which is very easily and completely tamed, is about five inches long from nose to rump, with a round tail about an inch shorter; the head is thickish, with large, prominent, black eyes; roundish, transparent, almost naked ears, of a brownish ash colour; the whiskers are black and longer than the head; the neck short. The fur is very fine and soft, of an ash colour on the upper parts of the body, with white tips; on the lower parts white in the middle of the belly, and ash coloured all around. The membrane begins at the ears, and is extended to the fore and hind legs, and to the tail; on the fore legs it adheres as far as the toes, and includes a peculiar bone, which is attached to the wrist, and helps to stretch it out in flying; and on the hind legs it extends to the ankles. By means of this membrane, when the fore and hind legs are stretched out, the animal is enabled to support itself in the air, as if flying, for a considerable way; and swims nearly in the same manner.

575

2. Virginian Flying-Squirrel.—*S. Petaurus virginianus*.

Of a reddish colour on the upper, and yellowish ash on the lower, parts of the body; the lateral membrane involving the chin and ears.

Sciurus volans virginianus, or Virginian Flying Squirrel. Seba, Mus. i. t. xlv.—Hood, *Proc. Zool. Soc. Lond.* vol. i. p. 10. Penn. hist. of quad. n. 284. Arct. zool. n. 52.

Inhabits Virginia.—The ears are large and oval; the lateral membranes begin at the ears, proceeding along the lower parts of the face, involve the fore legs, extending to the hind legs. This is probably only a variety of the preceding.

576

3. Labradore Flying-Squirrel.—26. *S. Petaurus hudsonius*. 27.

Of a reddish brown colour on the upper parts of the body; the under parts of a yellowish white; the tail hairy and flattened.

Sciurus volans major, or Larger Flying Squirrel. Pallas, Glir. 354. Forster, Phil. Transf. lxii. 379.—Severn river Flying Squirrel. Penn. hist. of quad. n. 282. Mus. Roy. Soc. Arct. zool. n. 53.—*Sciurus hudsonius*, or Hudson's Bay Squirrel. Syst. nat. ed. Gmel. i. 153. n. 27.

Inhabits North America to the south of Hudson's Bay, and about Severn river.—Is about the size of the Common Squirrel: The membrane does not border the fore legs; the fur is long and full, the under parts of the hairs being ash coloured, and the tips reddish brown.

577

4. European Flying-Squirrel.—27. *S. Petaurus volans*. 10.

Of a pale leaden grey colour on the upper parts of the body; the under parts pure white; the tail is full of hair, and rounded at the ends. Schreber, iv. 813. t. ccxxiii. Penn. hist. of quad. n. 285. Arct. zool. i. 124. B. Lev. Mus.

Sciurus volitans, or Flying Squirrel with broad membranes. Faun. Suec. ii. 13. n. 38. Mus. ad Fr. i. 8.—*Sciurus volans*, or Flying-Squirrel, of a dark ash colour. Briff. quad. 157. n. 11.—

Sciurus volans sibiricus, or Siberian Flying Squirrel, of a pale ash colour. D°. 159. n. 13.—*Sciurus volans*, or Flying Squirrel. Rzaczinski, Polon. 316. Klein, Ph. Transf. 1733, t. 35. f. 1. Seba, Mus. i. 67. t. 41. f. 3. Pallas, Glir. 355.—*Sciurus petaurista volans*. Klein. quad. 24.—*Sciurus*, f. *Mus scythicus*, *Mus ponticus*, Scythian or Pontic Mouse, or Squirrel, known by the name of Flying, which might be called *Sciurus latus*, or Broad Squirrel, on account of its extended sides. Gefn. quad. 743.—*Quadrupes volatile*, or Flying quadruped, from Ruffia. Duvernoi, Com. Petrop. v. 218.—*Poulatouche*, or Smaller Flying Squirrel. Sm. Buff. v. 305. pl. cxxxix. when collapsed, and cxi. when extended.—*Sciurus volans*. Syst. nat. ed. Gmel. i. 154. n. 10.

Inhabits Siberia in great numbers, and more rarely in Lapland, Livonia, and Poland.—Lives much in beech woods, feeding on the buds, catkins, and tender twigs of the beech trees. Except in the season of love, this species lives in a solitary manner, wandering about even in the milder days, and middle of the day, in winter; it forms a nest of moss in the hollows of trees: It is a fierce, and feverely biting animal, which can hardly be tamed; by means of the membrane, which extends to the very base of the fore feet, and forms a large projecting wing on each side; it is capable of making surprising leaps from tree to tree: In the month of May the female brings forth two or three, seldom four, young ones. The ears are naked and indented on the outer edges; the eyes are full, and surrounded with black; the body and head measure very little more than four inches, the tail five, which, in leaping, or rather flying, it extends, but, when at rest, keeps over the back, like the common species. According to the celebrated Pallas, this species is larger than the American Flying Squirrel, yet the individual described by Mr Pennant is somewhat less, so that we must conclude, that both kinds vary in size; its colour does not incline to yellowish, but is of a whitish russet on the upper parts, and pure white on the belly and under parts of the body; the head is shorter and more rounded than in the American species; the tail is shorter, and contains fewer vertebrae, is scarcely at all shaded with dusky on its upper part, and is not more than half the length of the body; the eyes are placed nearer to the nose, and are surrounded with a darker circle; the fore legs are shorter, and the hind legs are longer, especially the second joint or *tibia*.

578

5. Java Flying-Squirrel.—28. *S. Petaurus fagitta*. 11.

Of a ferruginous brown colour on the upper parts of the body; the under parts pale ferruginous; the tail very much flattened and blunt at the point. Nordgren.

Sciurus fagitta, or Arrow Squirrel. Syst. nat. ed. Gmel. i. 154. n. 11.

Inhabits Java.—Is about the size of the Common Squirrel, having an oval head, with oval, blunt, hairy ears, whiskers as long as the head, and one bristle on each cheek; the upper lip is divided, and the lower very short; the teeth are brown, and rather blunt: The feet are of a dull reddish colour; the fore feet have each four, and the hind feet five toes; all the toes having the foremost joint very prominent, and are furnished with claws which are compressed sideways; the fore feet are furnished with a long cartilaginous or bristly spur, as long as the fore-arm, within the membrane, which it affixes to expand; the hind legs are fringed with hair behind; the scrotum is large, egg-shaped, and hairy, and the prepuce is long and hairy. The membrane extends from the head, includes the fore legs to the wrists, and as far as the knees only of the hind legs; is of the same colour with the body, and is fringed at the edges.

6. Indian Flying-Squirrel.—29. *S. Petaurus Petaurista*. 28.

The tail is longer than the body, flattened, and very full of long hair. Schreber, iv. t. ccxxiv.

Sciurus maximus volans; *Felis volans*, Largest Flying Squirrel, or Flying Cat. Briss. quad. 112. n. 15.—*Civetta volans*, or Flying Civet. Valent. Ind. iii. 269. 270.—Taguan, or Great Flying Squirrel. Sm. Buff. v. 312. pl. cxli. collapsed; pl. cxlii. extended.—Sailing Squirrel. Penn. hist. of quad. n. 281. Mus. Roy. Soc.—Flying Cat. Neuhoﬀ, in Churchill's voy. ii. 354. and f.—Flying Hare. Michelbourn, in Purchas Pilgrim. i. 134. Hamilton, voy. ii. 131.—*Sciurus Petaurista*. Syst. nat. ed. Gmel. i. 155. n. 28.—Taguan. hist. gen. des voy. xv. lib. 4. c. 9. p. 51.

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α. Red Indian Flying-Squirrel.—*S. Pet. Petaurista castaneus*.

Of a very bright chestnut colour on the upper parts of the body; the under parts pale ferruginous. Pallas, Miscel. zool. 54. t. vi. f. 1.

580

β. Black Indian Flying-Squirrel.—*S. Pet. Petaurista niger*.

Of a black colour on the upper, and hoary on the under parts of the body. Pallas, Miscel. zool. 54. t. vi. f. 2.

Inhabits the islands of the Indian Ocean.—This species is greatly larger than the other animals of this division, being a foot and a half long from nose to rump; the head is rounded; the whiskers and claws are black; the female has six teats on the breast and belly; and the eyes have long narrow pupils like those of the Cat.

581

7. Southern Flying-Squirrel.—*S. Petaurus australis*.

Of a dusky blackish brown colour above, and whitish below, having rounded thumbs on the hind feet, and a long bushy tail, with large ears.

Petaurus australis, Southern *Petaurus*. Nat. misc. pl. 60.—Hepoona-roo. White, voy. to Botany Bay.

Inhabits New-South-Wales.—This is the largest and most elegant of all the Flying Squirrels; its most remarkable characteristic is the rounded thumbs, or great toes, of the hind feet, which are furnished with a flattened nail, while all the other toes, five to each foot, have sharp hooked claws; the two toes next this thumb are united together by the skin, but have separate claws; the colour is a fine-fable, or deep grey brown on the upper parts, darkest on the middle of the back, and the under parts are nearly white; the edges of the membrane are somewhat scalloped, and of a lighter colour; the fur is exquisitely soft and beautiful; the tail is long, and thickly clothed with very soft loose hair, longest towards the outer end; the ears are longish, and there is a black streak over each eye.

582

8. Phillips Flying-Squirrel.—*S. Petaurus norfolcensis*.

Of a dark grey colour on the upper, and white on the under parts, with a dusky black line along the back from nose to tail; a long bushy tail, and short ears.

Norfolk-Island Flying-Squirrel. Phillips, voy. to New South Wales, 151. and pl.

Inhabits Norfolk island, off the coast of New South Wales.—This animal is nine inches long from the head to the rump, and the tail is ten inches in length; the upper part of the membrane is black, edged with white; a black-line rises on each side of the head near the nostrils, and, passing over the eyes, finishes above the ears; the ears are very short, scarcely rising above the fur; the first two-thirds of the tail are ash coloured, paler than the body, the outer third is a dusky black; each fore paw has five hooked claws, but those of the hind feet are uncertain, as the specimen brought to England wanted the hind legs.

XXIX. DORMOUSE.—28. *MYOXUS*.

Has two fore-teeth in each jaw; the upper ones wedge-like, and those below compressed sidewise. The muzzle is garnished with long whiskers. The tail is hairy, round, and becomes thicker towards the extremity. The fore and hind legs are not remarkably unequal in length; and the fore feet have four toes.

The animals of this genus all walk, or rather leap, on their hind legs, like the Jerboas, using the soles of the feet as far as the heel, and spring three or four feet at a bound, in which they are assisted by their long stiff tails. They form holes, or burrows, under ground, in which they remain torpid in winter, and in summer they sleep most of the day, going out only at night, and feed entirely on vegetable food. They eat in a sitting posture, carrying their food in their fore paws; and when thirsty, they dip their fore feet, with the toes bent, into water, and carry it to their mouth.

583

1. Hoary Dormouse.—1. *Myoxus Glis*. 1.

Of a hoary or pale ash colour on the upper, and whitish on the under parts of the body; the tail full of long hair. Schreber, iv. t. ccxxv.

Sciurus canus, or Hoary Squirrel, with a whitish belly. Syst. nat. ed. xii. i. 87. Erxleb. mam. 429.—*Sciurus epilepticus*. Klein, quad. 54.—*Mus cauda pilosa*. Briss. quad. 160.—*Mus Glis*. Pallas, Glir. 88. n. 33. Glis. Gefn. quad. 619. Aldrov. dig. 407. f. p. 409. Jonst. quad. 164. t. 67. Raj. quad. 229. Loir, or Fat Squirrel. Sm. Buff. iv. 325. pl. xciv. f. 1. Penn. synopt. n. 217.—Fat Dormouse. Penn. hist. of quad. n. 287.

Inhabits

Inhabits France and the south of Europe, and in the south-west of Russia, about the Volga and Samara.—This animal is the *ελειος* of Aristotle, *μυζος* of Oppian, and *Glis* of Pliny; it was held in great esteem among the Romans, as a luxurious delicacy; they were fed in places called *gliraria*, constructed for the purpose, and they are still eaten by the modern Italians. It forms a nest in the hollow of some tree, in which it sleeps all day; feeds in the night on nuts, walnuts, the seeds of apples, &c. and grows very fat in autumn: About the month of October they gather in troops, and, retiring into subterranean burrows, remain torpid till near the end of May. This animal is about the size of the Common Squirrel, but thicker in the body, being six inches long from nose to rump, and the tail five; the ears are thin and naked; the cheeks are white; and the whiskers are long: The female has ten teats, six of which are situated on the breast, and four on the belly; and she brings from nine to twelve young ones at a litter.

584

2. Wood Dormouse.—2. *Myoxus Dryas*. 2.

Of a reddish brown or tawny grey colour on the upper, and dirty white on the under parts of the body; having a black line from ear to ear across the eyes. Schreber, iv. t. ccxxv. B.

Inhabits Europe.—This species, or rather variety, only differs from the following, in colour, in having a shorter and more bushy tail, and in the want of the black spots near the ears: They are, however, placed by Dr Gmelin as distinct species.

585

3. Garden Dormouse.—3. *Myoxus Nitela*. 3.

Of a tawny colour on the upper, and whitish ash, tinged yellow, on the under parts of the body; having a black circle round each eye, and a black spot behind each ear. Schreber, iv. t. ccxxvi.

Mus quercinus, or Oak Mouse, having a long hairy tail, and a black spot under each eye. Syft. nat. ed. xii. i. 84. n. 15.—*Mus nitedula*, or Bright-yellow Mouse. Pallas, Glir. 88. n. 32.—*M. avellanarum*, or Filbert Mouse. Gefn. quad. 833. Jonst. quad. 168. t. 66.—*M. avellan. major*, or Larger Filbert Mouse. Aldrov. dig. 439. Raj. quad. 419.—*Sciurus canus*, or Hoary Squirrel, with a whitish belly, and a black spot under each eye. Erxleb. mam. 432. n. 15.—*Glis*, or Dormouse, of a dull ash colour on the upper, and whitish ash colour on the under parts of the body, with a black spot at each eye. Briff. quad. 161.—*Lerot*, or Garden Squirrel. Sm. Buff. iv. 332. pl. xciv. f. 2. Penn. synopf. n. 218.—Garden Dormouse. Penn. hist. of quad. n. 288.

Inhabits the south parts of Europe and Russia.—This animal infests gardens, and is very destructive to all kinds of fruit, especially peaches; makes a nest in the hollows of trees and holes of walls, and is often found in Magpies nests; it smells rank like a Rat. The body and head measure five inches long, and the tail four; the eyes are black and full, and are surrounded with a large black spot which reaches to the base of the ears; the ears are oblong; the tail is surrounded with short hairs for more than half its length, and grows bushy at the end. It procreates in spring, and the female produces five or six young ones in summer.

586

4. Common Dormouse.—4. *Myoxus Muscardinus*. 4.

Of a tawny red colour, with a whitish throat; the thumbs or inner toes of the hind feet having no claws. Schreber, iv. t. ccxxvii.

Sciurus avellanarius, or Filbert Squirrel. Erxleb. mam. 433. n. 16.—*Mus avellanarius*, or Filbert Moufe, of a reddish colour with a whitish throat, having a long hairy tail, and the inner toes of the hind feet without claws. Syst. nat. ed. xii. i. 83. n. 14. Faun. Suec. 35. Pallas, Glir. 89. n. 34.—*Mus avellanarum minor*, or Lesser Filbert Moufe. Raj. quad. 220. Jonst. quad. 168. Aldrov. dig. 439.—*Muscardin*, Dormouse, or Sleeper. Sm. Buff. iv. 336. pl. xcv. Edw. av. t. 266. Penn. Synopf. n. 219. Lever. Mus. BRIT. ZOO. i. 95.—Common Dormouse. Penn. hist. of quad. n. 289. Arct. zool. n. 55.

Inhabits Europe.—Lives in thick hedges, woods, and copfes, making its nest of moss, grafs, or leaves, in the hollow of a low tree, or near the bottom of a thick bush; it forms magazines of nuts, and seldom goes into gardens, or far from its retreat; at the approach of winter it retires, and becomes torpid till summer, but sometimes revives in a warm day, takes a little food, and relapses again. It is about the size of a Moufe, but plumper, being about three inches long, and the tail, which is surrounded with short hairs and bushy at the end, is two inches and a half long; the ears are short, round, thin, and naked; the eyes are large, black, and prominent. It sits up on its hind legs when eating, using its fore paws to carry its food, and conceals what it cannot use; the female brings three or four young ones at a birth.

XXX. JERBOA.—29. *DIPUS*. 26.

Has two fore-teeth in each jaw. The fore legs are very short, and the hind legs excessively long. The tail is long, and is tufted at the end.

The remarkable characteristic of this genus is the enormous length of the hind feet, and extreme shortness of the fore paws; from this conformation, instead of walking or running on all fours, they leap, or hop, on the hind feet like birds, making prodigious bounds, and only use the fore paws for burrowing, or for carrying their food to the mouth, like Squirrels. From this peculiarity of conformation the Kanguru, G. xix. sp. 15. and Phillip's Opossum, sp. 16. of the same genus, ought to have been arranged with this genus of the Jerboa, but, from a rigid adherence to artificial system, they are by Dr Gmelin ranked with the genus Opossum, on account of the number and arrangement of their teeth.

587

1. Common Jerboa.—1. *Dipus jaculus*. 1.

Has four toes on all the feet, and a claw in place of a thumb, or fifth toe, on each fore foot. Schreber, iv. t. ccxxviii.

Mus jaculus, or Leaping Mouſe, with a long tail tufted at the end, four toes, and the rudiments of a fifth, on each fore foot, very long hind legs, and very ſhort fore legs. Syſt. nat. ed. xii. i. 85. n. 20. Muſ. ad. Fr. ii. 9. Forſkal, Faun. orient. 4. Haſſelq. It. 198. Aët. Stock. 1752, 123. t. 4. f. 1. Aët. Upf. 1750, 17. Pallas, Glir. 87. n. 27. t. xx. Gefn. quad. 837.—*Mus montanus*. Moncon. Ægypt. 288.—*Cuniculus pumilio falienſis*, or Dwarf Leaping Coney, with a very long tail. J. G. Gmel. Nov. com. Petrop. 1760, v. 351. t. 9. f. 1. Muſ. Petrop. i. 344. n. 123.—*Lepus*, S. *Cuniculus indicus*, Indian Coney, or Hare, named *Utias*. Aldrov. dig. 395.—Jerboa, Gerboa, Daman Iſrael, *Agnus filiorum iſrael*, or Lamb of the children of Iſrael. Proſp. Alp. Ægypt. 232. Shaw, trav. 248. 376.—Egyptian, and Siberian Jerboa. Penn. hiſt. of quad. n. 291. and 292.—Jerboa, Gerboiſe, or Yerboa, and Alagtaga. Sm. Buſſ. vii. 201. and 202.—Jerboa. Bruce, Abyſſin. v. 121. and fig.—*Lepus longicaudatus*, or Long-tailed Hare. Syſt. nat. ed. ix. n. 4.—Erdhauſe. S. G. Gmelin, It. i. 26. t. 2.

Inhabits Egypt, Arabia, Calmuck Tartary, and ſouthern Siberia.—Frequents firm, hard ground, and fields covered with graſs and herbs; forms burrows of ſeveral yards long in a winding direction, leading to a large chamber about half a yard below the ſurface; from this a ſecond paſſage is dug to within a very little way of the ſurface, by which they can eſcape when threatened with danger. When at reſt they ſit with their hind legs bent under their belly, and keep the fore legs ſo near the throat as hardly to be perceptible. They are not much afraid of mankind, and yet can ſcarce be thoroughly tamed; they feed on roots, graſs, wheat, and other grains; and it is certain that thoſe which inhabit Siberia cut graſs before winter, which, having dried, they collect into roundiſh heaps, and carry into their holes, to ſerve as winter proviſion. The fleſh is eaten by the Calmucks and Arabs. The body is ſomewhat more than ſeven inches long; the hind legs and naked thighs are three times as long as the fore legs, and even longer than the body; the tail is ten inches long, of a pale tawny colour, and round for three quarters of its length, the laſt quarter is tufted with long hair diſpoſed flat like that of the Squirrel, the firſt half of the tuft being black, and the outer half white. The upper parts of the body are of a pale tawny colour, and the under parts white; the ears and feet are fleſh coloured; the female has eight diſtantly placed teats.

2. Arabian Jerboa.—2. *Dipus Sagitta*. 2.

Has three toes on the hind feet, and has no thumb or fifth toe on the forepaws. Schreber, iv. t. ccxxix.

Mus sagitta. Pallas, Glir. 87. t. xxi. D°. It. ii. 706.

Inhabits Arabia, and near the Irtyſh in Siberia.—This animal frequents ſandy plains; it is only about ſix inches long, and the tail, which is ſcarcely ſo long as the body, is terminated with a ſmaller tuft than that of the preceding animal; the thighs are likewiſe thinner and leſs fleſhy, and the ſoles of the hind feet and bottom of the toes are covered with a very thick coat of hair; the head is more rounded; and the ears are much longer than the head.

The Jerboa is evidently the *Μυς διπυς* of the Greeks, and *Mus bipes* of the Roman writers. In the account of theſe two ſpecies, I have implicitly followed Dr Gmelin, without endeavouring to reconcile the discrepancies between him and Mr Pennant, becauſe even that celebrated naturaliſt ſeems not perfectly clear in his ſubdiviſion of the genus, ſo far as theſe laſt mentioned animals, the Egyptian, Siberian, and Arabian Jerboas, are concerned: That there are diſtinctions ſufficient, at leaſt, for ſta-

blishing different varieties, is evident from Pennant's account; and the difference of country between Egypt, Syria, Arabia, Barbary, and Æthiopia, on the one hand, and Siberia, or North-east Asia, on the other, renders it highly improbable that the same animals should inhabit these distant regions, without being found in the intervening country. Without, however, endeavouring to settle the point, I have subjoined an abstract of Mr Pennant's division.—T.

A. Egyptian Jerboa.—*Dipus aegyptius*.

Has three toes only on the hind feet; and four toes, with a scarcely apparent thumb or fifth toe, furnished with a claw, on the fore paws. Penn. hist. of quad. n. 291. pl. xlii. f. 3.

This animal Mr Pennant supposes to be the *Mus bipes* of the ancients, *Mus sagitta* of Pallas, *Jerbo* of Buffon, and *Daman Israel* of the Arabs. He says, that it inhabits Egypt, Barbary, Palestine, the deserts between Bafora and Aleppo, the sandy tracts between the Don and Volga, and the hills south of the Irtish. The fore part of the body is thin and flattened at the sides; the hinder parts large and swelling; the upper parts of the body and head are covered with long soft hair, of an ash colour at the roots, and pale tawny at the ends; the breast and belly are whitish; and an obscure dusky band crosses the upper parts of the thighs.

B. Siberian Jerboa.—*Dipus sibiricus*.

Has three toes on the hind feet, and two spurious toes some way up the legs; five toes on the fore feet, the thumb, or fifth toe, having no nail. Penn. hist. of quad. n. 292.

Mus siliensis. Nat. misc. pl. 38.

This species feeds much on the bulbs of the *Lilium pomponii*, and twigs of the *Robinia carugna*, is easily tamed, and, when in confinement, will eat raw flesh and fowls guts. It is divided into the following varieties by the same great naturalist:

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a. Great Siberian Jerboa.—*D. sibiricus major*.

Is eight inches and a half long, and the tail ten. Penn. hist. of quad. n. 292. α. pl. xlv.

The nose is truncated, and edged with white; the ears are large, pointed, tipped with white, and naked within; the upper parts of the body and thighs are covered with soft hair of a dark grey colour at the roots, and tawny at the ends; the breast, belly, and legs, are white. This variety is frequent, but chiefly frequents the country between the Caspian and the river Irtish.

590

b. Middle Siberian Jerboa.—*D. sibiricus medius*.

About the size of a Rat, and of the same colour with the former, having a white line across the top of each thigh. Penn. hist. of quad. n. 292. β.

591

c. Smaller Siberian Jerboa.—*D. sibiricus minor*.

Of the same size and colour with the former, but having a more lengthened nose.
Penn. hist. of quad. p. 429.

The ears are shorter and broader; the tail is thicker, and not so handsomely tufted; the hind legs are shorter; and the fur is longer and thicker.—These two varieties, b. and c. are found in the eastern parts of Tartary and Siberia beyond Lake Baikal; also in Barbary, Syria, and India.

592

d. Pigmy Siberian Jerboa.—*D. sibiricus pumilio*.

Is far smaller than the two former varieties. Penn. hist. of quad. n. 292. γ.

It resembles the first variety, a.; only that it wants the white circle on the nose; the tuft on the tail is smaller, and is barely tipped with white.—This variety inhabits the same places with the first, or great variety, a.

593

3. Cape Jerboa.—3. *Dipus cafer*. 3.

Has four toes on the hind feet, and five before. Schreber, iv. t. ccxxx. Pallas, Glir. 87. n. 29.

Yerbua capensis, or Cape Jerboa. J. R. Forster, and Sparrman, Act. Stock. 1778, ii. n. 3. and 4. t. 3. Miller on var. subj. t. xxxi. A. B.—Grand Gerboa. Allamand, in ed. Buff. Hol. xv. 118. Journal Histor. 59.—Cape Jerboa. Penn. hist. of quad. n. 293.

Inhabits the Cape of Good Hope.—This species is larger than any of the former, being fourteen inches long, the tail fifteen, and the ears three. On the upper parts of the body it is of a bright chestnut colour, interspersed with long hairs, having black tips; the lower parts are yellowish white; the head is more oblong than in the former species, the snout sharper, the ears longer, and the claws, especially on the fore feet, much longer; the tail is very hairy, and is tipped with black. This animal is called *Aerdmannetje*, or Little Earth Man, and *Springen Haas*, or Leaping Hare, by the Dutch at the Cape; it is very strong, and leaps twenty or thirty feet at one bound; it burrows with its fore feet; it sleeps sitting on its hind legs, with the knees separated, the head between the hind legs, and holding its ears with the fore paws over its eyes. It is caught by pouring water into its hole, which forces it to come out; has a grunting voice; and is eaten by the natives.

594

4. Caspian Jerboa.—4. *Dipus meridianus*. 4.

Has five toes behind, and three before, with the rudiments of a thumb or inner toe.
Schreber, iv. t. ccxxxi.

Mus longipes, or Long-legged Mouse, having five toes behind, four before, very long hind legs, and a long hairy tail. Syst. nat. ed. xii. i. 84. n. 19. Pallas, Glir. 88. n. 30. t. xviii. B. Mus. ad Fr. i. 9.—Mus meridianus, or Southern Mouse. Pallas, It. ii. 702.—Jaculus, or Jerboa, with four toes before and five behind. Erxleb. mam. 409.—Torrid Jerboa. Penn. hist. of quad. n. 294.

Inhabits the sandy deserts, between the Ural and Volga, near the Caspian.—This animal forms burrows, with three entrances, about a yard in depth; and feeds chiefly on the seeds of the *Pterococi* and *Astragali*. It is scarcely five inches long, and the tail, which is thick and only scattered with hair, is not quite three: The upper parts of the body are of a pale tawny, or yellow colour, sometimes brownish; the lower parts are white; and the hind part of the body is considerably thicker than the fore parts: The head and snout are more lengthened than in the Common Jerboa; the neck is remarkably short; the ears are large, oval, and naked; the circumference of the mouth and the feet are white; the soles of the feet are thickly clothed with fur; the thumbs of the fore paws have scarcely any claw; the hind thighs are very thick, strong, fleshy, and have little hair.

595

5. Marsh Jerboa.—5. *Dipus tamaricinus*. 5.

Has five toes behind, and three before, with the rudiments of a fourth; the tail is obscurely annulated. Schreber, iv. t. cccxxii.

Mus tamaricinus, or Tamarisk Moufe. Pallas, Glir. 88. n. 31. t. xix. D°. It. ii. 202.

Inhabits the salt marshes near the Caspian Sea.—This species probably feeds on the fruit of the *Tamarix* and *Nitrarium*, which grow in these marshes; and, under the roots of these trees, it forms very deep burrows, which have two entrances: It is a very elegant little animal, about five inches and a half long, from the nose to the rump; the tail is about the same length, and is covered with hair, having a slight bushyness at the extremity; the upper parts of the body are of a yellowish brown grey colour, and the under parts white; the ears are large, oval, and almost naked; the fore paws have each a remarkable protuberance in place of the thumb, or inner toe.

596

6. Labradore Jerboa.—*Dipus labradorius*.

Has four toes before and a tubercle instead of a thumb; four long slender toes behind and a short thumb or great toe: The tail is taper, slender, and almost naked.

Labradore Jerboid Rat. Penn. hist. of quad. n. 295. Arct. zool. n. 63. Mus. of the Roy. Soc.

Inhabits Hudson's Bay and Labradore.—This species was sent over from Hudson's Bay by Mr. Graham: The nose is blunt, and the mouth is placed much underneath, having a divided upper lip; the ears are large, rounded, and naked; the body and head are little more than three inches long, and the tail is four inches and three quarters; the upper parts of the body are of a deep brown colour; the under parts are white, and divided by a longitudinal yellow line, on each side, from the brown colour of the back.

597

7. Circassian Jerboa.—*Dipus circassicus*.

Of a chestnut colour, with the body considerably lengthened and equally thick; the tail long and bushy.

Circassian jerboid Rat. Penn. hist. of quad. n. 295. A.

Inhabits the neighbourhood of the river Terek in Circassia.—Is about the size of the Hamster; the ears are like those of a Moufe; the eyes are red and sparkling; the teeth are sharp; the hair is long, especially

especially on the back; the claws are sharp; the fore legs are shorter than the hind legs. This animal burrows in the ground, and runs much faster up hill than down.

XXXI. H A R E.—30. *L E P U S*. 22.

Has two fore-teeth in each jaw; in the upper jaw is a second inner row of fore-teeth which are considerably smaller than the outer or primaries. The fore feet have each five, and the hind feet four toes.

The animals of this genus are all remarkably timid, and live entirely on vegetable food; they use the hind feet in walking as far as the heel, and run by a kind of leaps or repeated bounds. They have either exceedingly short tails, named *scuts*, or none at all.

* With tails.

598

1. Peruvian Hare.—1. *Lepus Viscaccia*. 5.

Has a longish tail, beset with bristles. Molin. hist. nat. Chil. 272.

Vizcacha. Laet, Amer. 407.—Viscacha. Nieremb. hist. nat. 161.—Viscachos. Feuille, obs. iii. 32. Acofta, ap. Purch. pilgr. iii. 966. Garcilasso de la Vega. 331. Penn. hist. of quad. p. 376.

Inhabits the plains, and bases of the mountains, in the colder parts of Peru and Chili.—The fur of this animal is of a mouse colour, and so fine and soft, that, in the time of the Incas, it was wove into cloth for the Peruvian nobles, and is still employed for bonnets by the Chilese. In general appearance and manners, it resembles the Rabbit, and digs holes under ground, having two contiguous chambers, in one of which it sleeps, and the other, which is lower, it employs for eating its provisions, which are collected in the night time; the tail is bushy, and much longer than in any other species of the genus, it turns up in general, and is employed as a weapon of defence, but in what manner we are not informed.

599

2. Common Hare.—2. *Lepus timidus*. 1.

Has a very short tail; the ears are longer than the head, and black at the ends. Faun. Suec. 25. Schreber, iv. t. ccxxxiii. A.

Lepus. Pliny, viii. c. 55. Gefn. quad. 69. Aldrov. dig. 247. Jonst. quad. t. 65. Raj. quad. 204. Erxleb. mam. 325. n. 1. Klein, quad. 51. Briff. quad. 94.—Lievre, or Hare. Sm Buff. iv. 137. pl. lviii.—Hase. Riding. jagdb. Th. t. 13.—Common Hare. Penn. hist. of quad. n. 241. BRIT. ZOO. i. 87. Lever. Mus.

600

β. Horned Common Hare.—*Lep. timidus cornutus*. 1. β.

Has slightly branched horns. Probably fabulous or artificial. Schreber, iv. t. ccxxxiii. B.

Lepores cornuti, or Horned Hares. Klein, quad. 52. t. 3. Gefn. quad. 634. Mus. reg. Hafn. n. 48. t. iv. Mus. Worm. 321. Grew, Mus. Roy. Soc. Pallas. Penn. hist. of quad. p. 369.

601

γ. Yellow Common Hare.—*Lep. timidus melinus*.

Of a straw colour; of the same size with the Hare, and runs like it. Cook, voy. iii. 365. Penn. hist. of quad. n. 369.

A very full history of the Hare is to be found. Lagographia W. Waldungii, Amberg. 1679, and C. F. Paullini. Vienn. 1691.—Its anatomy. E. N. Cur. d. 1. a. 2. obf. 251. and a. 3. obf. 93. and d. 3. a. 5. obf. 225. and Bartholin. 2d. Hafn. 1671, n. 136.

Inhabits every where in Europe, more plentiful in Bulgaria than in other parts; in the northern parts of Persia, in Japan, Ceylon, and almost the whole of Asia; in Egypt, and Barbary; in North America, and even in Chili.—The Hare is a very timid animal, entirely destitute of weapons, very quick in both the senses of hearing and of sight, and very swift, especially in running up hill; when hunted it runs in a circular direction, gradually lessening the circuit, and often doubles back parallel to its path, leaping to a great distance at the turn, on purpose to throw off the dogs. It feeds only by night, chiefly on the twigs and bark of shrubs and young trees. It is hunted for sport with dogs or hawks, and, in India, with some species of the Cat genus. The Hare is said to be fond of the sound of a drum, and is much infested with fleas; it does not burrow, but makes a kind of nest, called by sportsmen a *form*, among bushes or long grass; its urine is very fetid, which it takes care not to void in its nest. It does not pair, but breeds often in the summer and spring, the male pursuing the female when in season by the scent; the female has a large clitoris, and, after going thirty or one and thirty days, brings three or four at a litter; superfetation is not uncommon, as they are very lascivious. The body and head measure about two feet long, and weigh between eight and nine pounds when full grown, sometimes, though rarely, twelve: The head is oblong, and shaped like an egg, having long ears tipped with black, large, prominent, black eyes, which are placed much outwards, are provided with a membrana nictitans, and remain open even when the animal is asleep; the end of the nose is moveable, and always moist; the chin is white, and the snout is furnished with long white whiskers; the upper lip is divided: The fur on the face, back, and sides, is white at the roots, black in the middle, and tawny red at the ends; the breast and throat are reddish; the belly is white; the tail is black above, and white beneath; the hind thighs are strong, thick, and fleshy, with a cavity on each side at the pubes; the feet are thickly covered with hair on the soles. The Hare is fond of birch, parsley, and pinks; its flesh was forbidden by the Druids, and was held in great esteem by the Romans, as it still is by the inhabitants of modern Europe, as, though very black, dry, and devoid of fat, it is high flavoured.

602

3. Varying Hare.—3. *Lepus variabilis*. 6.

Has a very short tail; the ears are shorter than the head; the whole fur grows white in winter, except the tips of the ears, which remain black. Pallas, Glir. P. i. t. iv. f. 1. Schreber, iv. t. ccxxxv. B.

Lepus

Lepus albus, or White Hare. Briss. quad. 139. n. 2. Aldrov. dig. 349. Wagn. helvet. 177.—*Lepus albifimus*. Klein, quad. 51.—*Lepus candidus*. Jonst. quad. 160.—Alpine Hare. Forster, Phil. Transf. lxii. 375. Penn. Syn. p. 249. n. 184. BRIT. ZOOL. illust. 40. t. xlvii.—Varying Hare. Penn. hist. of quad. n. 242. pl. xl. f. 1. Arct. zool. n. 37.

603

β. Spurious Varying Hare.—*Lep. variab. hybridus*. 6. γ.

The sides only turn white in winter. Schreber, iv. t. ccxxxv. C.

Spurious varying Hare. Penn. hist. of quad. n. 242. α.—Ruffak. Pallas, Glir. P. i. p. 15.

Inhabits the coldest and most hilly parts of Europe and Asia; as Scotland, Norway, Lapland, Russia, Siberia, Kamtschatka, Greenland, and in America about Hudson's Bay and Labradore.—The spurious variety is a mixed breed, between the Varying and Common species, which sustains in winter only a partial change of colour on the sides and more exposed parts of the ears and legs: It is only found in the southern and western parts of Siberia. Sometimes in autumn the Varying Hare collects in flocks of five or six hundred; driven from the mountains of Russia and Siberia, they migrate in quest of subsistence into the lower country, and return again in spring. It is larger than the Common Hare by four inches in length, according to Dr Gmelin, though Mr Pennant says that it is less; probably those of Scotland are smaller than the Russian. In summer the head is of a greyish tawny; the ears and back tawny mixed slightly with black; the neck verges to ash colour; the sides grow gradually whiter from the back downwards; and the belly is white; the soles are black and very thickly clothed; sometimes, in Siberia, they are yellow: The flesh of this species is harder, drier, and less flavoured, than that of the Common kind. The fur of the Spurious variety is very much like that of the Common species in winter. The Varying Hare keeps on the tops of the highest hills, and almost never mixes with the Common species; it does not run swiftly, and takes shelter, when pursued, in the clefts of rocks; it is easily tamed, and very frolicsome; is fond of honey and sweetmeats; eats its own dung before a storm; changes to white in September, and recovers its grey colour in April; and is subject to these changes even when kept in a warm room: In Greenland it is always white.

604

4. Black Hare.—*Lepus niger*.

Has a very short tail; the fur is entirely black, or very dark tawny, the whole year. Syst. nat. ed. Gmel. 16. n. 6. β.

Lepus niger, or Black Hare. Briss. quad. 139. n. 3. Klein, quad. 52. Penn. hist. of quad. p. 371.

Inhabits Siberia, and the government of Cassan.—This is much larger than the common kind, and is very glossy.

605

5. American Hare.—4. *Lepus americanus*. 7.

Has a very short tail; the hind legs are a half longer than the body; the tips of the ears and of the tail are grey. Erxleb. mam. 330. n. 2. Schoepf. Naturf. xx. 30.

Lepus hudsonius, or Hudson's Bay Hare, with the tips of the ears and tail grey. Pallas, Glir. 30.—Hudson's Bay quadruped. Barrington, Phil. Transf. lxii. 11.—Hare, or Hedge Coney. Lawfon, Carol. 122. Catesby, app. xxviii.—American Hare. Forster, Phil. Transf. lxii. 376. Penn. hist. of quad. n. 243. Arct. zool. n. 38.

Inhabits North America.—In New England, Canada, and farther north, this species gets a long, silky, silver-white coat of fur, during winter, the edges of the ears only remaining grey; to the south it retains the whole year a short fur of an ash colour mixed with rusty and black, on the neck and body, the legs pale ash colour, and the belly white. It is smaller than the Common Hare, being only eighteen inches long, and weighs from three pounds to four and a half; it takes shelter in hollow trees and under fallen timber, and breeds once or twice a year, producing from five to seven at a litter: The fore legs are proportionally shorter, and the hind legs considerably longer, than those of the common kind.

606

6. Baikal Hare.—5. *Lepus Tolai*. 8.

Has a short tail; the edges of the ears are black. Pallas, Glir. 17. t. 4. f. 2. Schreber, iv. t. ccxxxiv.

Lepus dauricus, or Daurian Hare, having a longish tail, and a black throat. Erxleb. mamm. 335.—*Cuniculus leporinus*, or Hare-like Coney, of the same colour with the Common Hare, and having a longish tail. J. G. Gmelin, nov. com. Petrop. v. 357. t. ii. f. 2.—*Lepus*, having the upper part of the tail black, and the under part white. Briff. quad. 97.—Baikal Hare. Penn. hist. of quad. n. 245.—Tolai, or Baikal Hare. Sm. Buff. viii. 228.

Inhabits the country beyond lake Baikal, in the desert of Gobi, and as far as Thibet.—This species is called *Tolai* by the Monguls, and *Rangwo* by the Tanguts; it is larger than the former species; in summer it is very much of the same colour with the summer coat of the Varying Hare, and in winter turns only a little paler; the legs are likewise smaller than in that species, and the hind legs are longer; the tail is longer than that of a Rabbit, but shorter than that of the Common Hare, and, like it, is black, especially at the root. It agrees with the Rabbit in the whiteness of its flesh, but does not burrow; it runs straight forward when pursued, and takes shelter as soon as possible in the holes of rocks.

607

7. Chilese Hare.—6. *Lepus minimus*. 9.

The tail is very short; and the ears are of an uniform colour. Molin. hist. nat. Chil. 272.

Inhabits the kingdom of Chili.—This species is very small, not exceeding the size of a small Rat; the body is of a conical form, the ears are small and sharp pointed, the snout is lengthened, and, if it be not an error of Molina or his printer, the fore feet have four toes each, and the hind feet five; the fur is exceedingly fine, but very short; the flesh is white, and very good eating. This species resembles the domestic Rabbit, in the variability of colour, and in prolificness, producing almost every month, six or seven young ones at a time, and is domesticated in Chili.

608

8. Cape Hare.—8. *Lepus capensis*. 3.

The tail is bushy, and as long as the head; and the feet are red. Penn. hist. of quad. n. 246. J. Burmannus.

Inhabits the country three days journey north from the Cape of Good Hope.—Dwells in the fissures of rocks, and does not burrow: The ears are long, dilated in the middle, the outfides being naked and rose coloured, the insides and edges covered with short grey hairs; the crown of the head and the back are of a mixed dusky and tawny colour; the cheeks and sides are ash coloured; the breast, belly, and legs, are rust coloured; the tail, which is bushy and carried upwards, is of a reddish or pale rusty colour. This animal is about the size of a Rabbit, and is probably the same that is mentioned by Adanson as found in Guinea, which he says is smaller than the common kind, is of a colour between that of the Hare and Rabbit, and has white flesh.

9. Common Rabbit.—7. *Lepus Cuniculus*. 2.

Has a very short tail almost of the same colour with the body; the ears are black at the points; and the hind legs are shorter than the body. Pallas, Glir. 30. Erxleb. mam. 331. n. 3. Schreber, iv. t. ccxxxvi. A.

Lepus Cuniculus, or Rabbit, with a very short tail, and naked ears. Syft. nat. ed. xii. i. 77.—With a short tail and red pupils of the eyes. Syft. nat. ed. ii. 46. D°. ed. vi. 9. n. 3. Mus. ad. Fr. i. 9.—Of a dusky grey colour. Briff. reg. anim. 140. n. 4.—*Cuniculus*. Pliny, viii. c. 29. 55. 58. Aldrov. dig. 382. f. p. 385. Agric. an. sub. 16. Gefn. quad. 394. Jonst. quad. 161. t. 65. Raj. quad. 205.—Kunin. Faun. Suec. n. 26.—*Lapin sauvage*, or Wild Rabbit. Sm. Buff. iv. 155. pl. lix.—Rabbit. Penn. hist. of quad. n. 244. BRIT. ZOOL. i. 90.—The anatomy. Perv. obs. 10.

609

α. Wild Rabbit.—*L. Cuniculus ferus*.

Of a brownish grey colour.

610

β. Black tame Rabbit.—*L. Cun. domesticus niger*.

Of an uniform black colour.

611

γ. White tame Rabbit.—*L. Cun. domesticus albus*.

Of an uniform white colour, with fiery red eyes.

612

δ. Pied tame Rabbit.—*L. Cun. domesticus variegatus*.

Of a pied or mottled black and white colour. Sm. Buff. iv. 155. pl. lx.

613

ε. Silvery tame Rabbit.—*L. Cun. domesticus argenteus*.

Of a silvery grey or ash colour, with tawny feet. Briff. reg. an. 191.

Silver-haired Rabbit. Sm. Buff. iv. pl. lxi.

Inhabit naturally the warmer parts of Europe, Asia, and Africa; are not natives of Britain, but have for ages been here in great numbers, both wild and tame. — Dwells principally in dry sandy soils, in which it forms long winding burrows; it keeps in these holes in the middle of the day, and goes out in the evening, night, and morning, in quest of food; feeds upon all kinds of green vegetables and grain; its flesh is white and much esteemed, especially that of such wild ones as feed on juniper. The female breeds six or seven times a year, going thirty or thirty-one days with young, and brings from four to eight at a litter; they come to their full size in six months, and live about eight or nine years; the male is very salacious, and is apt to destroy the young ones: They are preyed on by hawks, badgers, and polecats, and are caught by means of terriers, nets, and ferrets. Numbers are bred in a wild state in places set apart for the purpose, called *warrens*; and great numbers are bred in houses in a domestic state. The Rabbit is considerably smaller than the Hare, being scarcely eighteen inches long; the ears are shorter than the body; the wild variety is of a brown ash colour, having the upper part of the tail black, and the under part white. The fur of the silvery variety is valuable.

614

10. Hooded Rabbit.—*Lepus saccatus*.

Has a double fold of the skin behind the head, and another under the throat. Syft. nat. ed. Gmel. 165. n. 2. ♂.

Hooded Rabbit, or Russian Rabbit. Penn. hist. of quad. n. 244. γ. pl. xl. f. 2.—*Lepus cuniculus ruficulus*. Syft. nat. ed. Gmel. i. 164. n. 2. ♂.

Its place unknown.—This animal is described by Mr Pennant from a drawing in the British Museum by Mr Edwards, and is called by him a Russian Rabbit, but it is unknown in that empire. It is of an ash colour with brown head and ears; the fold of the skin behind the head admits of the head being drawn back and concealed within it, and there are two holes in the fold for the eyes; that below the throat receives the fore feet occasionally.

615

11. Angora Rabbit.—*Lepus sericeus*.

Is covered with long, waved, silky hair. Schreber, iv. t. cccxxvi. C.

Lepus cuniculus angorensis, or Rabbit of Angora, having a tail, and covered with very fine and long hair. Briff. quad. 141. n. 6. Syft. nat. ed. Gmel. 163. n. 2. γ.—Angora Rabbit. Penn. hist. of quad. n. 244. β.—Lapin d'Angora, or Angora Rabbit. Sm. Buff. iv. pl. lxii. and lxiii.

Inhabits Angora, in Asia Minor.—This is an exceedingly beautiful animal on account of its fine, white, silky fur, which is a valuable article in commerce. It is a very singular circumstance, which cannot be at all accounted for, that this animal the Rabbit, the Cat of Angora, already described, and the Goat of the same place, to be described hereafter, are all adorned with a similar silky clothing of long fine hair.

** Having no tails.

616

12. Brazilian Hare.—9. *Lepus brasiliensis*. 4.

Has very large ears, no tail, and, for the most part, a white ring or collar round the neck. Pallas, Glir. 30.

Lepus

Lepus brasiliensis, or Brazilian Hare, having no tail. Syft. nat. ed. ix. n. 1. D°. xii. 78. n. 4. Briff. quad. 97.—*Cuniculus brasiliensis*, or Brazilian Coney, named *Tapeti* by the natives. Marcgr. Braf. 223. Pifo, Braf. 102. Raj. quad. 205. Sm. Buff. viii. 276.—Citli. Fernand. Mexic. 2.—Brazilian Hare. Penn. hift. of quad. n. 247.—Collared Rabbit. Wafer, in Damp. voy. iii. 401.

Inhabits South America, and Mexico.—Is of the fame colour and magnitude with the Common Hare, but darker, with fimilar large ears; refembles the Rabbit in general appearance; fome individuals want the white ring round the neck, fo that the fpecies is principally diftinguifhed by the want of tail. It lives in the woods, does not burrow, and is very good eating.

617

13. Calling Hare.—10. *Lepus pusillus*. 10.

Has no tail: The ears are triangular, and white at the edges; the upper parts of the body are of a dark brown, mixed with blackifh grey, and the under parts hoary. Schreber, iv. t. ccxxxviii.

Lepus pusillus. Pallas, Glir. 30. 45. t. 1. and t. 4. f. 3. 9. and Nov. com. Petrop. xiii. 534. t. 14. and It. i. 155. ii. 533. iii. 498. Lepechin, It. i. 260. Zimmerman. Mant. pl. ii. 522. Erxl. mam. 338. n. 8.—Calling Hare. Penn. hift. of quad. n. 250.

Inhabits the fouthern extremity of the Ural mountains, about the Irtifh, and on the funny hills. to the fouth of the Altaic chain.—It delights in funny vallics, and hills that are covered with grafs; and feeds chiefly on the flowers and bark of the *Cytifus fupinus*, *Robinia frutefcens*, *Cerafus pumila*, and *Malus fylveftris*; digs holes in dry places, amid bufhes, and leads a very retired life, feldom going to any diftance from its burrows; thefe are long and intricate, with a very fmall entrance. They are difcovered by means of their voice, which is very loud and fonorous, like the piping of a quail, and may be heard to a great diftance; it is repeated, at juft intervals, three, four, or even fix times, moftly at night and morning, and never in winter or in bad weather. This is a gentle animal, and is eafily tamed; it fleeps little, but drinks frequently; and is moft active in the night time: Its pace is not at all quick, and is by leaps, as if the loins were very weak. The body is little more than fix inches long, and weighs about four ounces and a half in fummer, though fcarcely two and a half in winter; the outer fur is harfh, and of a pale grey tipt with black on the upper parts of the body; the lower parts of the fides and the feet are pale yellowifh, the breaft and belly are whitifh or hoary, and the throat is hoary; under this is a very copious coat of very foft, long, and fine down, of a brownifh lead colour: The head is more lengthened than that of any of the preceding fpecies of this genus, with dark eyes like thofe of a Rat; the body is flender, weak, and unfteady; and the legs are fhort.

618

14. Mountain Hare.—11. *Lepus alpinus*. 11.

Has fhort rounded ears. and no tail; is of a bright bay colour, with brown ears and hind feet. Schreber, iv. t. ccxxxviii.

Lepus alpinus, or Alpine Hare. Pallas, It. ii. 569. 701. t. A. D°. Glir. 30. and 45. 59. t. 2. and t. 4. f. 10. 12. Zimmerman. Erxl. mam. 337. n. 7. Penn. hift. of quad. n. 248. Arct. zool. i. n. 39.—*Mustela daurica*, or Daurian Weafel, with a reddifh back, a fhort thick body, and no tail, called *Ochodona daurica anaurinos*. Catal. muf. Petrop. 343. n. 114. 115.

N n 2.

Inhabits

Inhabits the Altaic chain of mountains, to the extremity of Asia, and beyond the Lena and Jenissei.—Dwells in the most rugged and inaccessible shelves of the mountains, forming burrows in the clefts of the rocks, or living in the hollow trunks of decayed trees; in these it lies during the day, except in cloudy weather, when it collects into small flocks on the rocks; the voice or cry resembles a loud whistle. In the month of August they cut down great quantities of soft tender grass and other herbs, chiefly the *Gramen sylvaticum*, which they spread out to dry, and in September they collect this hay into regular conical ricks round the trunk of a tree, or place it in heaps under the shelter of rocks; these are covered by the snow in winter, and the animals form a trodden path from their holes to the magazine by which they go to feed: Sometimes these ricks are as high as a man, and many feet diameter; but usually they are only about three feet; they are often of vast service to the hunters, as provender for their horses, which would otherwise sometimes perish, in those inhospitable regions, for want of food. The Mountain Hare is preyed on by Sables and Siberian Weasels, and is much infested by the *Oestrus leporinus*, a species of gad-fly, which lodges its eggs in their skins, and often destroys them. The general appearance of this animal is more dull and wilder than the Calling Hare; the body is shorter and more big bellied; the head is longer and more slender, with large, broad, but short, rounded ears, very long whiskers, and small black eyes; the under parts of the body are of a dirtier white; the female has two teats on the groin, and four on the breast; the upper part of the throat is somewhat ash coloured; the fur of the body is dusky at the roots, and of a bright ferruginous or bay colour at the ends, slightly tipped with white, and intermixed with long dusky hairs; but at first sight seems of a bright unmixed bay colour. It varies in size from seven to nine and a half inches long, and weighs from one pound and a quarter to four ounces.

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15. Ogotona Hare.—12. *Lepus Ogotona*. 12.

Has oblong, oval, somewhat pointed ears, of the same colour with the body, which is pale grey; no tail. Schreber, iv. t. cccxxxix.

Lepus Ogotona. Pallas, Glir. 30. 59. 70. t. 3. and t. 4. f. 14. 16.—Ogotona Hare. Penn. hist. of quad. n. 249.—*Mustela mungalica*, Mongolian Weasel, or *Ochodona mungalica*, of Mefferichmid; with a short body, and having no tail. Cat. mus. Petrop. i. 343. n. 112.

Inhabits the mountains beyond Lake Baikal, and all Mongolia, especially the great desert of Gobi.—This animal dwells sometimes in rocky places among heaps of stones, or forms burrows in sandy places with two or three entrances; these are dug in an oblique direction, and the old females, for security, form many of these near and connected together. They go about mostly at night; the voice is exceedingly sharp and clamorous, somewhat like the chirp of a sparrow, twice or thrice repeated, but very easily distinguished from that of the preceding species; they feed mostly on the bark of the *Pyrus baccata*, and on the suckers of the dwarf Elder, and in spring on various herbs which grow in the sandy soil; these, like the Mountain Hare, they collect, in autumn, into heaps for winter provision. This is a very nimble animal, which is scarcely capable of being tamed: It is preyed on by various species of the weasel tribe, by the Manul cat, by hawks of different kinds, woodpeckers, and owls: It differs from the Calling and Mountain Hares chiefly in size, being about six inches and a half long; the female weighs about four ounces, and the male about seven; from the Calling Hare, which it most resembles, it differs in being of a much paler colour, which is uniform the whole year, in having stronger legs, and by the figure and dusky colour of the ears: The fur is intermixed with

a few dusky hairs; the nose has a yellowish spot, and the space about the rump is of the same colour, as are the outsidcs of the limbs; the belly is white; the fur of the body is brown at the roots, light grey in the middle, white at the tips, and interspersed with a very few dusky hairs. It procreates in spring, and the young ones are fully grown by the end of June.

XXXII. A S H K O K O.—31. *HYRAX*.

Has two broad and distant fore-teeth above; four contiguous broad, flat, notched fore-teeth below; and four large grinders on each side in both jaws. The fore feet have four toes; the hind feet only three. No tail; and no collar bones.

The English generic name of this animal is borrowed from Mr Bruce, the celebrated Abyssinian traveller, who describes one species of this genus. In the former editions of the *Systema Naturae*, and by several ingenious naturalists, the first species is considered as belonging to the Cavy genus; the second species is newly discovered.

1. Cape Ashkoko.—1. *Hyrax capensis*. 1.

Has flat nails on all the toes, except one toe of each hind foot which is armed with a sharp pointed claw. Schreber, iv. t. ccxl.

Cavia capensis, or Cape Cavy, having no tail, and four teeth in the lower jaw. Erxleb. mam. 352. n. 3. Syst. nat. ed. xii. iii. 223. Pall. miscel. zool. 34. t. 3. and 4. f. 5. 13. D^o. spic. zool. fasc. ii. 16. t. 2. 3. Penn. hist. of quad. n. 239.—Bastard African Marmot, or Rock Badger. Voefinaer, ap. Buffon.—Cape Marmot. Sm. Buff. iv. 348. pl. xcix.—Klipdas. Gr. a Mellin, schr. der Berl. naturf. iii. 271. t. 5.

Inhabits the Cape of Good Hope.—This animal is about the size of a Rabbit, being about fifteen inches long; the head is short, with the back part very thick, and the snout very short and blunt; the eyes are small; the ears are oval and open, brown, woolly, and half hid in the fur; the legs are very short, the upper joints of both being concealed beneath the skin; the hind legs are rather longer than the fore; the feet are large, black, and naked: The body is short, thick, and contracted, with a prominent belly, and is covered with a soft woolly fur, of a yellowish brown or greyish colour, hoary at the roots; the sides are of a dirty whitish grey; and along the back is a brownish stripe; this fur is interspersed with longer and coarser black hairs, and a few very coarse long bristles. The fore feet have four short, scarce divided, thick toes, furnished with flat nails; the two outer toes of the hind feet are similar, but the inner toe is longer, and has a sharp claw. This animal has a sharp voice, and acute sense of hearing; its gait is very wavering and unsteady, owing to the shortness of its thighs and unequal length of the hind and fore legs, notwithstanding of which it is very active, and moves by leaps; it is very cleanly, lives entirely on vegetable food, drinks little, is fond of heat, and burrows in the ground. In manners and general appearance this animal resembles

fembles

resembles the Marmot and Cavy; in the conformation of its toes it has some analogy with the Maucauco; but from the circumstances of the teeth it cannot be ranked with the last; and the peculiarity of the feet has caused Dr Gmelin to separate it from both of the former.

621

2. Syrian Ashkoko.—2. *Hyrax syriacus*. 2.

Has soft tender nails on all the toes. Schreber, iv. t. ccxi. B.

Ashkoko. Bruce, Abyff. v. 139. and fig.

Inhabits Syria and Ethiopia.—The body of this species is more lengthened than that of the former, and the snout more oblong. The fur is of a reddish grey colour, like that of the Wild Rabbit, the throat, breast, and belly, being white; all over the body a number of long, strong, and polished hairs, are scattered among the fur: The body and head of the individual described by Mr Bruce measured seventeen inches; the ears are broad, open, and rounded; each side of the mouth is garnished with long whiskers; in walking, which is performed creeping low with the belly almost touching the ground, the hind feet are used as far as the heel; all the toes have short, broad, weak, flat nails, except the inner toe of the hind foot, which is provided with a flat crooked nail somewhat longer than the rest; the soles of the feet are formed of fleshy naked protuberances, divided by furrows. It lives mostly about the mouths of caves or clefts in rocks, is gregarious, feeds entirely on vegetables, is mild, feeble, timid, and easily tamed, and has no voice or cry. Mr Bruce is of opinion that this animal is the Gannim, or Daman Israel, of the Arabs, and the Saphan of sacred scriptures, which has erroneously been translated the Rabbit. Its flesh is very white, but is not eaten by the Abyssinians or Mahometans. The same celebrated traveller is of opinion that it ruminates, or chews the cud.

V. P E C O R A.

Have no fore-teeth in the upper jaw; the lower jaw has six or eight fore-teeth, which are placed at a considerable distance from the grinders. The feet are armed with hoofs. The teats of the females are situated on the groins.

All the animals of this order have four stomachs, already described among the characters of the orders, in the introduction to the class of Mammalia; in consequence of this structure they all feed on vegetable food, and ruminate, or chew the cud; that is, having swallowed their food almost whole, while feeding, it remains for some time in the first stomach, where it is macerated in the gastric juice, and afterwards, when the animal is at rest, it is brought up in mouthfuls, is fully chewed, and again swallowed for digestion. They are likewise all hoofed, or have their feet armed with horny shoes, without toes and claws; these hoofs are divided by a cleft in the middle into two portions; and besides these all except the Camel have two looser false hoofs, on the back part of each foot, which do not reach the ground in walking. Such of them as have horns have no tusks, and those which have tusks want horns*. Most of them are subject to a kind of balls in their stomachs, formed of hair licked off their bodies and swallowed; these are named Aegagropila.

XXXIII. C A M E L.—32. C A M E L U S. 27.

Has no horns. In the lower jaw are six thin broadish cutting teeth; at some distance from those and from the grinders there are two tusks on each side in the lower, and three in the upper jaw. The upper lip is divided.

I. Arabian Camel.—1. *Camelus Dromedarius*. 1.

Has one hump on the back. Brissl. quad. 45. Raj. quad. 143. Forstk. faun. orient. P. iv.

Καμηλος Αραβικος. Arist. hist. an. lib. ii. c. 1.—Camelus Arabicus. Plin. lib. viii. c. 18.—Camelus dromas. Gefn. quad. 171. f. p. 172. Pr. Alp. Æg. i. 223. t. 1.—Camelus. Jonst. quad. 95. t. 41.

42.

* Linnaeus mentions one solitary objection to this rule, having seen the skull of a Roe which had both horns and tusks.

42. 43.—Dromedarius. Gefn. thierb. 234. f. p. 234. Charlet. exerc. 13.—Dromedaire, or Dromedary. Sm. Buff. vi. 118. pl. clv.—Arabian, or One-bunched Camel. Penn. hist. of quad. n. 58. pl. xiii. f. 1.

Inhabits, in a wild state, the deserts of Arabia and Africa, and the temperate parts of Asia; is found, though not in great numbers, on each side of the Songar mountains, towards the river Ili, Mount Mufart, Mongalia, and the southern parts of Siberia; is domesticated and broke in for the uses of man all over the East, and in Africa, and has likewise been bred in Jamaica and Barbadoes.—This species is subject to numerous varieties in size and colour; it is generally of a reddish ash, sometimes white or cream coloured; is a mild and gentle animal, except when in season, or when infested by the Oestrum, a species of gad-fly; is wonderfully adapted for journeying in dry sandy deserts, being remarkably patient both of hunger and thirst, fasting almost entirely for whole days, and putting up with the dry branches of such spinous shrubs as grow in the desert, which no other animal of burthen could use; and will likewise go on without drink for many days, nature having endowed it with the instinct of storing up a quantity of water, on these occasions, in a particular stomach: It is capable of carrying very large burthens, even a thousand or twelve hundred weight, but travels slowly, and cannot be forced to quicken its pace, neither will it receive more on its back than its accustomed load; it kneels down to be loaded or unloaded at the command of its keeper. The hair of the Camel is very soft; it is short in summer, but longest on the neck and hunch; in winter it grows considerably longer, and falls off in the spring, being carefully collected by the Arabs and wove into cloth, or made into felts, either for clothing or for tent cloths. This species is usually about six feet and a half high, with a small head, and short ears; the roof of the mouth and gums are covered with a tough cartilaginous skin; the neck is long, slender, and reversely arched; the feet are half cloven on their upper parts, the two toes being armed with a kind of small hoofs, but the soles are undivided, and are covered with a naked tough skin. On the breast, on each knee, on the inside of each fore leg, and at the upper joint of each hind leg, are callosities, in all seven, on which the animal rests when it lies or kneels down; the tail is considerably shorter than the hind legs, and is covered with roughly flowing hair: The male is retromingent, and his commerce with the female is difficultly attained.

On an individual of this species, shewn some years ago at Edinburgh, was observed a peculiar conformation of the skin of the neck a little behind the head; a space about three inches by four, was full of minute open pores, apparently the ducts of miliary glands, from which a heavy smelted aqueous fluid could be pressed out in abundance. It is uncertain whether this be common to the whole race, or accidental; perhaps it is a provision of nature to carry off the perspirable matter, by a partial emunctory, to save the vast waste which general perspiration must occasion, in the torrid and waterless deserts of Asia, Arabia, and Africa.—T.

β. Swift Camel.—*Camelus dromos*.

This variety resembles the former, but is much smaller. Penn. hist. of quad. p. 119:

Fong-Kyo-Fo, or Camels with feet of wind. Du Halde, hist. of China, ii. 225.

The swift variety is employed in Persia, Arabia, and Syria, for expresses, and is said to travel ninety or a hundred miles a day, and to be able, with very little food or rest, to continue this astonishing rate for eight or nine days. It is this variety to which the name of Dromedary ought exclusively to belong,

belong, as that word is derived from the Greek *Δεσμεος*, which signifies swift. The swift Camels of China, above referred to, are probably similar to those of Persia and Arabia.

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2. Baſtrian Camel.—2. *Camelus baſtrianus*. 2.

Has two hunches on the back. Briff. quad. 53. Forſter, Phil. Tranſ. lvii. 343. Forſk. Faun. orient. P. iv. Raj. quad. 145.

Καμηλος Βακτρικος. Ariſt. hiſt. an. ii. c. 1.—*Camelus Baſtrianus*. Plin. viii. c. 18.—Dromedarius. Jonſt. quad. 42. 43. 44. f. 1.—*Camelus turcicus*, or Turkiſh Camel. Proſp. Alp. Aeg. i. 223. t. 13.—*Camelus*. Gefn. quad. 162. f. p. 163. Schwenkf. theriatr. 72. Aldr. biſ. 907. 889.—Chameau, or Camel. Sm. Buff. vi. 118. pl. clxvi.—Trampelthier, oder Dromedar. Knorr. del. nat. t. κ. 6.—Baſtrian, or Two-hunched Camel. Penn. hiſt. of quad. n. 58. β.

Inhabits, in a wild ſtate, the weſtern parts of India, and in the deſerts near the Chineſe Empire.—This ſpecies is extremely hardy, and is bred in Perſia, Africa, and the eaſt, but is more rare than the Arabian, or ſingle hunched kind; it is chiefly appropriated by the great men, and is ſwifter of foot than the other, though not nearly ſo much ſo as the ſwift variety of the Arabian. In its general appearance and manners it reſembles the Camel with one hunch, from which it differs chiefly in having longer hair, eſpecially on the throat and neck, and in being ſurmounted with two hunches on the back; of theſe the hinder one is larger than the other. Camels are ſaid to be poiſoned by the boxwood tree; they procreate in February, the female goes a whole year with young, and produces only one foal at a time; it arrives at its full growth in two years, during moſt part of which time it continues to ſuck.

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β. Mixed Camel.—*Camelus hybridus*.

In Perſia a hybrid race is carefully cultivated between the Arabian and Baſtrian ſpecies; this is in high eſtimation, as ſtronger, hardier, and more active than either; it is capable of reproduction, but the breed degenerates, and is only kept up in perfection by the original means of its production.

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3. Glama.—3. *Camelus Glama*. 3.

Has a hunch on the breſt.

Camel, with very ſhort hair. Briff. quad. 55.—*Camelus Peruvianus*, or Peruvian Camel, called Glama. Raj. quad. 145.—*Ovis peruana*, or Peruvian Sheep, named Pelon, Ichiatl, or Oquitli. Hernand. mex. 660. Charlet. exerc. 9. Jonſt. quad. t. 46.—*Cervocamelus*. Jonſt. quad. t. 29.—Hirſch-camel. Gefn. Thierb. 239.—*Ελαφοκαμηλος*. Margr. Braſ. 243.—Llama. Laet, amer. 405. Ulloa, voy. i. 365. t. 24. f. 5. Penn. hiſt. of quad. n. 59. Sm. Buff. viii. 133.

Inhabits the high mountains of Peru, Chili, and other parts of South America.—This is the Camel of Peru and Chili; in manners, ſlow pace, uſe, rumination, difficult commerce of the ſexes, patient endurance of hunger and thirſt, external form, and internal ſtructure, it reſembles the Camel of the old world; but is much ſmaller, ſeldom reaching four feet and a half high, and has no hunch on the back. The head is ſmall, with a ſhort noſe, large round black eyes, and ſharp pointed ears of a moderate ſize; the neck is long, much bent, and very protuberant where it joins the body; the legs are long, and the feet half cloven; the tail is ſhort. This animal is mild, gentle, and docile; it is domeſti-

cated in South America, and employed for carrying burthens, especially from the mines, through the rugged mountains, having a firm, sure-footed, grave step. The fur is long and soft, of a white or yellowish colour, spotted with black and brown; the body is about six feet long, and the hunch or protuberance on the breast is said, by some authors, to be constantly moistened with a yellowish oil, or clammy fluid. It fights its enemies with the feet and teeth, and, when angry, discharges its saliva, sometimes to the distance of ten paces, which, if it falls on the skin, raises an itching reddish spot. The voice is a kind of neighing. It procreates * about the end of summer; the female has two teats, goes five or six months with young, and brings one at a birth, seldom two. It can carry about a hundred and fifty pounds, travelling for three or four days incessantly, at the rate of three German miles a day, and then requires a whole day to rest; like the Camel, it kneels down to be loaded or unloaded, and will not rise if overburthened, neither will blows force it to quicken its pace; it lies down when wearied; its temper is very stubborn, and it can only be forced to proceed by compressing the testicles. Its flesh is equally good with our best mutton, and is very fat, when well fed, especially immediately below the skin.

Dr Gmelin questions whether this may not be the same animal with the Camel, altered by climate to a smaller size; but, if there were no other reason, the different times of gestation are sufficient to mark a totally different species; the neck is less bent, the back is almost even, the tail is more elegant, the pace is quicker, the legs are handsomer, and the hair, which is spun into worsted, is softer and longer, than in the Camel.—T.

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4. Guanaco.—4. *Camelus Huanacus*. 5.

The body is hairy, the back protuberant, and the tail is carried erect. Molin. hist. nat. Chil. 281.

Pernichatl. Fernand. Mex. 11.—Guanaco, or Huanacu. Laet, Amer. 406. Ovalle, Chil. 44. Cieza, Peru. 233. Ulloa, voy. i. 366. t. 24. f. 5. Hawkesworth, voy. i. 148.

Inhabits the Andes in South America, and comes down into the lower parts of Peru and Chili in winter.—This species resembles the Glama in manners and many particulars of its external form, and in the uses to which it is applied by the natives of the country; but these animals never intermix, either in the wild or domesticated state: Besides this, the Guanaco wants the protuberance on the breast described in the Glama; it has a hunch on the back, which the former animal has not; its hind legs are likewise considerably shorter in proportion, and its gait is a kind of bounding or hobbling, on account of the inequality between its hind and fore legs. The body and head measure about seven feet long, and near four feet three inches high; the tail resembles that of a Stag, and the ears are like those of the Horse; the upper parts of the body are yellow, and the under parts pure white. The flesh of the younger animals is very good eating, but that of the older ones is rather hard and insipid, unless when salted.

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5. Chilliñueque.—5. *Camelus arcucanus*. 6.

The body is covered with wool; the back has no protuberance; the upper part of the nose is much curved; and the tail is pendulous. Molina, hist. nat. Chil. 279.

Aries

* Mari penis longus, tenuis, retroflexus, sub finem aetatis coit fere furens; foeminae vulva angusta.

Aries moromorus. Nieremb. hist. nat. 182.—Sheep of Peru. Cieza, Peru. 232. Ovalle, Chil. 44. Feuille, journ. iii. 23. Frezier, voy. i. 264. t. 22. f. A.—Chillihueque. Clavigero, Mex. ii. 323. quoting Molina.

Inhabits Chili and Peru.—The neck, legs, head, nose, flaccid pendulous ears, eyes, tail, and wool, of this animal resemble a good deal those of Sheep; but the tail is longer, and the wool much finer: In other circumstances, however, it is congeneric with the Llama, Huanaco, Pacos, and Vicugna. This animal was formerly employed, like the Glama and Huanaco, for carrying small burthens of about a hundred pounds, and for tilling the ground. The wool is exceeding fine, soft, and silky, and is used for fabricating very fine cloths; it is sometimes white, sometimes black, brown, or ash coloured. The flesh is very good.

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6. Vicugna.—6. *Camelus Vicugna*. 7.

The body is clothed with fine wool; the nose is blunt and flat; and the tail is flat. Molina, hist. nat. Chil. 277.

Vicuna, Vicunna, or Vicunnas. Laet, Amer. 406. Nieremb. hist. nat. 184. f. p. 185. Cieza, Peru. 233. Ulloa, voy. i. 506. 525. t. 24. f. 3.—Vicognes, or Vicunas. Frez. voy. i. 266.—*Camelus Vigogne*, having the whole body covered with long woolly hair. Briff. quad. 57. n. 4.

Inhabits the highest and most precipitous peaks of the Andes in South America, especially in the Chilese provinces of Coquimbo and Copiapo.—This animal is timid, very swift, and extremely patient of cold; it keeps in large herds on the mountains, and is tamed with great difficulty. The natives stretch long cords, with bits of cloth hanging to them, across the gorges of the mountains, and, driving the Vicognas towards them, they are so frightened by the flutter which the pieces of cloth make in the wind, that they dare not pass, but, huddling together, fall an easy prey to the hunters. This species was likewise used in former times for carrying small burthens of fifty to seventy-five pounds; the flesh is very good; and the wool is used for making fine cloths and caps. The Vicugna has some resemblance to the Goat in figure, and in its tail; but the neck is longer in proportion, the head is rounded and hornless, the ears are short and erect, the nose is short, and the legs are twice as long as those of the Goat; the wool is excessively fine, silky, and easily dyed, and is usually of a rose colour. This species is distinguishable from the Pacos, by having a more slender body, and by the wool and snout being both of them shorter than in that animal, with which, besides, it will not intermix. A Bezoar is often found in the stomach of the Vicugna.

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7. Pacos.—7. *Camelus Paco*. 4.

Has no protuberances on the body, which is covered with fine wool; and the snout is lengthened.

Camelus peruvianus laniger, or Peruvian woolly Camel, called Pacos. Raj. quad. 147. Klein. quad. 42.—Pacos. Hernand. Mex. 663. Laet, Amer. 405. Sm. Buff. vii. 133. Penn. hist. of quad. n. 60.—Alpagne. Frez. voy. i. 267.

Inhabits the highest mountains of Peru.—This species resembles the Vicugna considerably, but is smaller; its flesh is not so good, and its wool, though longer, is not so fine. It is gregarious like the
O o 2 former,

former, and so stupid as to fall a prey to the same simple snare; it was likewise used formerly for carrying small loads. In the wild state the upper parts of the body are of a purple colour, and the under parts white; in the domesticated state the colour varies, but is usually black, mottled with white and reddish, or brown; the wool is used for the same purposes with that of the Vicugna; but, being coarser, the stuffs made from it are not so silky.

XXXIV. MUSK.—33. *MOSCCHUS*. 28.

Has no horns. There are eight fore-teeth in the lower jaw; and two long tusks, one on each side, in the upper jaw, which project out of the mouth.

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1. Thibet Musk *.—1. *Moschus moschiferus*. 1.

Has a bag or tumour on the belly, near the navel; and a very short tail. Pallas, *spic. zool.* xiii. t. 4. 6. Schreber, v. t. ccxlii.

Moschus. Schroeck, *hist. mosch.* Vienn. 1682. iv. t. 44. Brun. *It.* 121. t. 121.—Animal *moschiferum*, or Musk animal. Nieremb. *hist. nat.* 184. J. G. Gmel. *Nov. com.* Petrop. iv. 393. Raj. quad. 127.—Bifamthier, *Capreolus moschi*, or Musk Roe. Gefn. quad. 786. D°. Thierb. 50. f. p. 50. 51. Jonst. quad. t. 29.—*Capra moschi*, or Musk Goat. Aldrov. *bifulc.* 743. f. p. 744. Jonst. quad. 78. Charlet. *exerc.* 10.—*Tragus moschiferus*. Klein, quad. 18. Briff. *reg. an.* 97. n. 5.—Musc, or Musk. Sm. *Buff.* vii. 44.—Thibet Musk. Penn. *hist. of quad.* n. 54. pl. xii. f. 1. Arct. *zool.* i. 34. A.

Inhabits the principal Alpine mountains of Asia, especially the highest rocky mountains from the Altaic chain to that which divides Thibet from India; likewise in China and Tonquin, and in eastern Siberia about lake Baikal and the rivers Jenisea and Argun.—Dwells solitarily in the most precipitous places of the mountains, among rocks, in the small narrow valleys surrounded by these snowy hills, and in the pine forests which grow in their interstices, but chiefly keeps on the highest tops of the snowy peaks. This is a very gentle and excessively timid animal, except in the season of love, in November or December, when the males fight violently with their tusks for the females; it is exceedingly active in leaping, running, climbing, and swimming, and is very difficultly tamed; the flesh is eatable, and that of the younger animals is reckoned delicate. The male measures about three feet three inches long from the nose to the origin of the tail, and is about two feet three inches high at the shoulder; the female is less than the male, has a sharper nose, has no tusks nor musk bag, and is provided with two teats: The head is very handsome, and resembles that of the Roe; the fur is coarse like that of the animals of the Deer kind, but softer, very smooth, erect, plentiful, thick, and long; the colour varies according to the age of the animal, and time of the year, but is chiefly blackish brown on the upper, and hoary, seldom white, on the under parts of the body; in younger animals it is marked with streaks and spots, which, growing larger as the animal grows older, at last van-

* The Musk animal was first mentioned by Cosmas in the sixth century.

nish altogether ; the tail is very short, and is hid in the fur. Near the prepuce is situated the musk bag, or follicle, which is of a somewhat oval figure, flat on one side, and rounded on the other, having a small open orifice. In young animals this bag is empty, but in adults it is filled with a clotted, oily, friable matter, of a dark brown colour ; this is the true musk, and the best comes from Thibet, that which is found in Siberia having somewhat of the flavour of Castor ; each bag contains from a dram and a half to two drams.

The upper jaw is much longer than the under, and is furnished on each side with a slender tusk two inches long, and hanging quite out of the mouth ; the ears are long, narrow, and of a dark brown on the outside, the inside yellow ; the long hairs, of which the fur is composed, are ash coloured near the bottom, black near the ends, and reddish brown at the tips, being each marked with short waves from top to bottom ; in some the fore part of the neck is marked with long white stripes, and the back with pale brown perpendicular stripes ; the hoofs are long, black, and much divided, and the spurious hoofs of the fore feet are very long ; the scrotum is of a bright red colour, and the penis very small.

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2. Indian Musk.—2. *Moschus indicus*. 2.

Of a reddish brown colour on the upper, and uniformly whitish on the under parts of the body ; the tail is shortish ; and the feet have spurious hoofs. Schreber, v. t. ccxlv.

Tragulus indicus, having short hair, of a tawny colour on the upper, and whitish on the under parts of the body. Briff. reg. an. 322. n. 3.

Inhabits India.—This species is much of the same size with the former ; the head, however, resembles that of a horse, with erect, oblong ears, and the tail is longer and more perceptible ; the legs are very slender.

633

3. Pigmy Musk.—3. *Moschus pygmaeus*. 3.

Has no spurious hoofs ; is of a tawny red colour on the upper, and white on the lower parts of the body. Erxleb. mam. 322. n. 3.

Musk, having the legs smaller than a man's finger. Syft. nat. ed. xii. 92.—Capra, or Goat, with curved, conical, obtuse horns, furrowed on the fore parts. Syft. nat. ed. x. 69.—*Tragulus guineensis*, with long hair of a dark tawny colour. Briff. regn. an. 96. n. 2.—*Cervus pusillus*, or Small Deer, of Guinea. *Cerva parvula*, or Small Doe, from Africa, without horns, and of a red colour. *Juvenus pergracilis*, Beautiful Fawn, or Young Deer, from Africa. *Cervus africanus*, or African Deer, with red fur. Seba, Mus. i. 70. 73. t. 43. f. 1. 2. 3. and t. 45. f. 1. Klein, quad. 22.—*Chevrotain des Indes orientales*. Buff. hist. nat. fr. ed. xii. 315 and 341. t. 42. and 43.—Indian Memina? Sm. Buff. vii. 22. pl. cc. f. 1.—Guinea Musk. Penn. hist. of quad. n. 57. Nat. miscel. pl. 3.

Inhabits India, Java, and the other Indian islands.—The body and head of this elegant little animal measure only nine inches and a half long ; the tail is about an inch long ; the ears are long. It is called Kant-chil by the Malayes, and Poet-jang by the inhabitants of Java. The two middle fore-teeth are very broad, and the other six very slender ; the tusks are small.

634

β. Striped Pigmy Musk.—*Mosch. Pigm. leverianus*.

In the Leverian Museum is a specimen of this species, which varies a little in colour from that above described; being ferruginous, intimately mixed with black, and having perpendicular white stripes on the neck and throat. Penn. hist. of quad. p. 115.

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4. Memina.—4. *Moschus Meminna*. 4.

Has no spurious hoofs; is of an olive ash colour on the upper, and white on the under parts of the body; the sides being spotted with white. Erxleb. mam. 322. n. 2. Schreber, v. t. ccxliii.

Meminna. Knox, Ceylon. 21.—Ceylon Chevrotin, or Ceylon Memina. Sm. Buff. vii. 22. pl. cc. f. 2.—Pissay. Hamilton, voy. to E. I. i. 261.—Indian Musk. Penn. hist. of quad. n. 56. pl. xii. f. 2.

Inhabits Ceylon and Java.—Is about seventeen inches long from the nose to the rump; the tail is very short; the ears are large and open; the sides are spotted and barred transversely with white. In Mr Pennant's plate, which is copied from a drawing sent him by Mr Loten, Governor of Ceylon, the feet have small spurious hoofs.

636

5. Javan Musk.—5. *Moschus javanicus*. 5.

Has very small spurious hoofs; of ferruginous colour on the upper, and white all along the under parts of the body; the tail is longish and hairy, being white below and at the tip. Pallas, spic. zool. xii. 18. and xiii. 28.

Inhabits Java.—This species is about the size of a Rabbit, and its legs are similar to those of the Pigmy Musk; the back of the neck is of a hoary brown grey colour, intermixed with dark brown hairs; the under part of the neck is white, with two spots, almost run together, of a hoary grey colour, and having two very long divergent hairs under the throat; the top of the head is longitudinally marked with blackish; the knees have two brushes, and there are no pits either on the groins or below the eyes. This animal and the Memina seem only varieties of the Pigmy species.

637

6. Brazilian Musk.—6. *Moschus americanus*. 6.

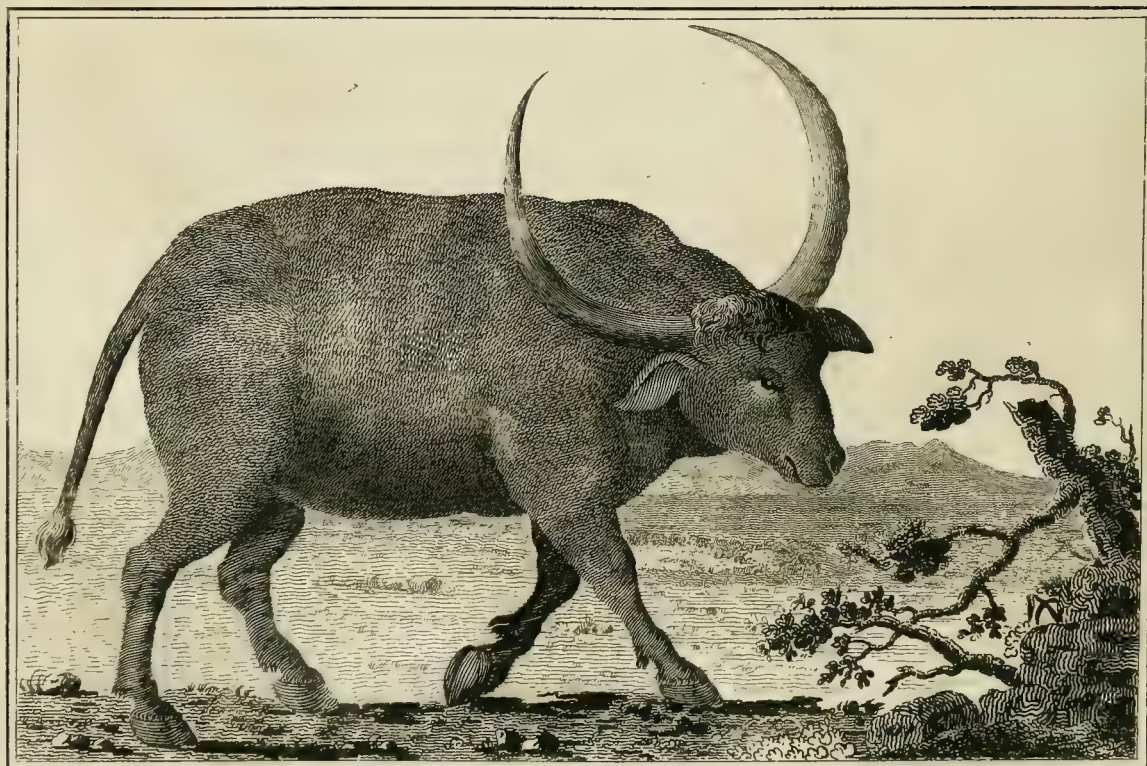
Of a reddish brown colour, with a black muzzle, and white throat. Erxleb. mam. 324. n. 4.

Tragulus Surinamensis, of a reddish yellow colour, and marked with white spots. Briff. reg. an. 96. n. 3. Klein. quad. 22. Seba, Mus. i. 71. t. 44. f. 2. Marchais, voy. iii. 281.—Wirrebocerra. Bancroft, Guiana. 123.—Brazilian Musk. Penn. hist. of quad. n. 55.

Inhabits Guiana and Brasil.—This animal is scarcely so large as the Roe; it is exceedingly timid, shy, active, and swift; and has much of the manners of the Goat, especially in climbing rocks. The fur is soft and short; the colour of the head and upper part of the neck is dark brown, the lower part of the neck and throat are white, the body and limbs are reddish brown: The hind legs are longer



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longer than the fore; the ears are four inches long. In the specimen examined by Mr Pennant the throat and underfide of the neck were of the same colour with the rest of the body. Dr Gmelin fufpects that the above described animal may only be a fawn of the American Roe.

638

7. Formosan Musk.—*Moschus sinensis*.

Of the fize of a Stag, and without horns. Nieuhoff, voy. in Harris, coll. 209.

Inhabits the ifland of Formofa.—This animal is only mentioned by Nieuhoff in a cursory manner, as above, without plate or farther description.

XXXV. DEER.—34. *CERVUS*. 29.

Has folid branched horns, which fall off and are renewed every year. The lower jaw has eight fore-teeth; in general this genus wants tuks, but sometimes one tuk is found on each fide in the upper jaw.

The animals of this genus are all fond of living in woods; they fight with their horns, and ftrike with their fore feet; they are faid to have no gall bladder; their flefh is univerfally wholefome, and that of fome kinds, under the name of venifon, is efteemed a great delicacy; fome fpecies are ufed by mankind for draught. Mr Pennant has fubdivided the genus into fuch as have the horns *palmated*, that is, fpread out into broad flat boards, having proceffes or projections, named *fnags*, fancifully fupposed to refemble fingers, and the broad part to have fome likenefs to the palms of the hands; hence the name; and fuch as have *rounded* horns, likewise branched. It may be neceffary to explain a few terms ufed in defcribing the horns of this genus: The *beam* is that part of the horn which riles from the fore-head, like the ftem of a tree; the *palms* are broad flat expansions of the horns in fome fpecies, which are befet round with proceffes like fingers, called *fnags*; the branches are fubdivifions of the horns, like thofe of trees; the *brow antlers* are particular proceffes in fome fpecies, which arife from the beams near the head, and project forwards. The horns grow from the points, and, when growing, are covered with a fkin which is extremely vafcular, and clothed with a fine velvet fur; from which circumftance the growing horns are named *velvets*; this fkin dries, shrivels, and falls off, when the horns have attained their full fize.

* Having palmated horns.

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1. Elk.—2. *Cervus Alces*. 2.

Its broad palmated horns have very fhort beams or none; the throat has a tufted excrefcence. Schreber, v. t. cclxvi. A. B. Briff. regn. an. 93. n. 9. Miller, on var. fubj. of nat. hift. t. x. A.

Alce, or Machlis. Plin. hift. nat. viii. c. 15.—Alces. Caefar, bell. Gal. v. c. 27. Gefn. quad. i. 3. Scheff. Lap. 336. Charlet. exerc. 12.—Alce. Schwenkf. ther. 53. Aldrov. bifulc. 866. f.

p. 869. 870. Jonst. quad. t. 30. 31. Olear. mus. t. 9. f. 2. Raj. quad. 86. J. F. Leopold, diff. de Alce. Basil. 1700.—Mosse. Laet, Amer. 68.—Mose Deer. Dudley, Phil. Transf. n. 368. p. 165. Dale, D°. abrid. ix. 85. t. 6. f. 50.—Elk. Lawton, Carol. 123. Penn. hist. of quad. n. 42. pl. ix. f. 1. 2.—Original. Charlev. nouv. Fr. iii. 126.—Elan, or Elk. Sm. Buff. vi. 315. pl. cxxxv.—Ælg. Faun. Suec. n. 39.—Lof. Rzaczinski, Pol. 212.—Moose. Arct. zool. n. 3. pl. viii.

Inhabits Europe, America, and Asia as far as Japan.—This animal is chiefly found in the northern parts of both continents, and frequents poplar woods and other forests, browsing on the twigs and branches of trees; they likewise often feed on marsh plants, and are said to be very fond of the *Anagyris foetida*, or Stinking Bean-trefoil. The Elk is as large as a Horse, being five and a half feet high before, and two inches higher behind; the head is large, with very long, large, upright, slouching ears; a very broad, square, upper lip, deeply furrowed, and hanging much over the mouth; a very broad nose, with large nostrils; the horns have no brow antlers, the palms are very broad, plain on the inside, and having many sharp snags on the outside; the neck is short and slouching, with a short upright mane, and a hairy wattle on the throat; the shoulder is very high; the tail extremely short; the hoofs are much divided, and the spurious hoofs large and loose: The general colour is a hoary black, greyest about the face. It is a mild animal, except in the season of love, when wounded, or when teased with the gad-fly. The pace is very ungraceful, consisting of a high shambling trot, during which their spurious hoofs make a loud rattling noise; but they go with great swiftness, and were formerly used in Sweden to draw sledges, with which they have been known to travel more than fifty miles a day. The hide is said to be so thick as to turn a musket-ball, and makes excellent buff leather. The flesh is reckoned very light and nourishing; the nose is esteemed a great delicacy; and the tongues, when salted, are much admired.

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β. Irish Elk.—*C. Alces fossilis*.

The horns have long beams, are palmated, and are furnished with flattened brow antlers; the snags on the palms are very long; and there is one long snag on the inner edge of each palm. Penn. hist. of quad. p. 97. pl. xi. f. 1.

The horns of this species are frequently dug up from peat-bogs in Ireland, but the living animal is unknown, having long been extirpated from that country; the horns are vastly larger than those of the Elk, besides being very differently formed, and measure sometimes eight feet long each, and fourteen feet between their tips.

2. Rein Deer.—4. *Cervus Tarandus*. 4.

Has long, rounded, slender horns, which bend forwards, and are palmated at the ends. Schreber, v. t. cexlviii. A. B. C. C. Faun. Suec. 41. Amoen. ac. iv. 144. t. i. Mus. ad. Fr. i. 11.

Ταργανδός. Aelian. an. ii. c. 16.—Tarandus. Plin. hist. nat. viii. c. 34. Aldrov. bifulc. 859. f. p. 861. Jonst. quad. 90. t. 37. Charlet. exer. 12. Scheff. Lap. 321. f. p. 327.—Rangifer. Gefin. quad. 950. Aldrov. bifulc. 863. Jonst. quad. t. 37. Mus. Worm. 337. Scheff. Lap. 338. Charlet. exerc. 12. Klein, quad. 88. Olear. mus. 16. t. 10. f. 3.—Renne, or Rein Deer. Sm. Buff. vi. 315. pl. cxxxvi.—Rein Deer. Penn. hist. of quad. n. 43. pl. x. f. 1. Arct. zool. n. 4.—The anatomy. Berthol. act. Haffn. 1671, n. 135. Houten, act. Stockh. 1774, vol. xxv. trim. 2. n. 4.

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α. Common Rein Deer.—4. α. Cerv. Tarandus Rangifer.

All the upper parts of the horns, both of the main branches, and the brow antlers, are palmated. Briff. regn. an. 92. n. 8.

Reinthier, and Tarandthier. Gefn. Thierb. 206. 207. 208. 209.—Rennthier. Gr. v. Mellin, Schr. der, Berl. naturf. gef. i. n. 1. Ridinger, wild. thier. 35.

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β. Greenland Rein Deer.—4. β. Cerv. Tarandus groenlandicus.

The horns are entirely rounded, and covered with a hairy skin; the nose is much covered with hair. Briff. regn. an. 88. n. 4.

Capra groenlandica, or Greenland Goat. Raj. quad. 90.—Greenland Deer. Catesb. Carol. app. p. xxviii.—Greenland Buck. Edw. av. i. t. 51.

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γ. Canadian Rein Deer.—4. γ. Cerv. Tarandus Caribou.

Has straight horns, with a single snag, turned forwards, at the base of each. Briff. regn. an. 91. n. 6.

Caribou. Charlev. nouv. Fr. iii. 129. Dobbs, Hudson's Bay. 20. 21.—Macarib, Caribo, or Pohano. Josselyn, New Eng. 20.

Inhabits chiefly the most northern mountains of Europe, Asia, and America, as far as Spitzbergen, Greenland, and Kamtschatka; is found likewise in the more southern parts of Russia, and even in Sardinia, though smaller; the horns have likewise been found in marle pits in Scotland.—In Lapland the wild Rein deer inhabit the highest mountains during summer, and descend into the desert plains in winter, from which they are again driven to the mountains in the summer to escape from the persecution of various insects, particularly the *Culex pipiens*, Gad-fly, and *Tabanus tarandi*. They feed much on a species of Liver-wort called from them *Lichen rangiferinus*, especially in winter, when they have to dig it out with their feet from below the snow, under many feet deep of which it lies buried. The male casts his horns immediately after the rutting season, about the end of November; and the female, which has horns like the male, though not so large, preserves hers till the middle of May, when she drops her fawns. She goes thirty-three weeks with young, and frequently has twins. In a domesticated state, the Rein deer seldom exceeds sixteen years of age. In Lapland great numbers of these animals are kept tame by the natives, to whom they are of indispensable use, for drawing sledges, and for supplying them with milk, flesh, and skins as clothing: The Samojedes likewise use their hides for sails. When castrated the male seldom loses his horns till nine years old.

In a domestic state the Rein deer seldom exceeds three feet high, but the wild animals are larger, sometimes four and a half feet at the shoulder. The horns of the Rein deer, though long, are rather slender; the beams are very long, bend first a little backward, are then gradually curved, and the palms at the ends stand forwards; the brow antlers rise from the main beams close to the head, have short beams, broad palms, and numerous snags; and generally, immediately over these, a branch rises from each main beam, which projects forwards, and is somewhat palmated at the ends, with several snags. The upper parts of the body are of a brown ash colour, growing gradually lighter with age, till it becomes white at last; the space round the mouth, the whole under parts of the body, and the tail, are white; the orbits are surrounded with black; the fur is very thickly set, and on the fore part

of the neck it is long and pendent; the tail is very short; the hoofs are large and concave; the male prepuce is much pendent; the female has six teats, the two posterior of which are impervious.

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3. Fallow Deer.—5. *Cervus Dama*. 5.

The horns are compressed, branched, and bending forwards; having their extremities palmated. Schreber, v. t. ccxlix. A. B.

Cervus Dama vulgaris, or common Fallow Deer, having the extremities of the horns palmated. Briss. regn. an. 91. n. 7.—*Cervus palmatus*, Dama, or Dama-cervus. Klein, quad. 25.—*Cervus platyceros*. Raj. quad. 85.—Προζ. Arist. hist. an. ii. c. 14.—Ἐλαφος ἐρυθκέρως, Ιορκος. Oppian, cyneg. ii. 293. 296.—*Platyceros*. Plin. hist. nat. xi. c. 37.—*Dama vulgaris*. Gefn. quad. 355. f. p. 1100.—Dof, or Dof-hiort. Faun. Suec. n. 42.—Daniel. Rzacz. Polon. 217.—*Platogna*. Belon, obs. 55.—Dann-Hirsch. Ridinger, jagdb. th. t. 7.—Dam-hirsch. Gefn. thierb. 202. f. p. 203. Gr. a Mellin, Schr. d. Berl. naturf. ges. ii. 9.—Dain, Daine, or Fallow Deer. Sm. Buff. iv. 113. pl. liv. iv.—Fallow Deer. Penn. hist. of quad. n. 44. BRIT. ZOOL. i. 34. Arct. zool. i. 33. B.—The anatomy of a Hermaphrodite Fallow Deer. Journ. encyclop. 1776, P. ii.

Inhabits Europe, and Asia as far as the northern parts of Persia and China, Greece, and Palestine, being the *Jachmur* of the Scriptures.—This species is not so plentiful or universal as the Stag; few are now found wild in Britain; but numbers are kept in parks. The colour varies, being sometimes reddish, sometimes deep brown, frequently spotted with white or grey, and rarely altogether white. It is gregarious, feeding always in flocks; is very easily confined to parks, and very readily made tame; it seldom lives above twenty years. The female has no horns, goes eight months with young, and brings only one fawn in general, seldom two, and hardly ever three, at a birth. Though they leap remarkably well, yet they may either be kept in an inclosure, or fenced out by means of a cord fixed horizontally two or three feet above the ground.

** Having rounded horns.

645

4. Stag.—3. *Cervus Elaphus*. 3.

Has long, rounded, upright branched horns. Schreber, v. t. ccxlvii. A. B. C. D. E.

Ἐλαφος. Arist. hist. an. ii. c. 7. and 18. vi. c. 29. ix. c. 6. Aelian, an. vi. c. 11. and 13. vii. c. 39. xii. c. 18. Oppian, cyneg. ii. 176.—*Cervus*. Plin. hist. nat. viii. c. 32. Gefn. quad. 354. Schwenkf. theriotr. 81. Aldrov. bifulc. 769. f. p. 774. Jonst. quad. 82. t. 32. 35. Mus. Worm. 338. Scheff. Lap. 337. Charlet. exerc. ii. Wagn. Helvet. 173. Sibbald, Scot. an. 9. Raj. quad. 84.—Jelen. Rzacz. Pol. 216.—Kron-hiort. Faun. Suec. n. 40.—Edler-Hirsch, Wild oder thier. Ridinger, jagdb. th. t. 4. 5.—Stag. Penn. hist. of quad. n. 45. Arct. zool. n. 5.—Red Deer, or Stag. BRIT. ZOOL. i. 34.—Cerf, Biche, et Faon; Stag, Hart, or Red Deer. Sm. Buff. iv. 74. pl. li. lii.—Its anatomy, E. N. C. cent. 10. app. 448.—Particular dissertations. Graba, eleographia. Jenae, 1668. J. G. Agricola, de cervi natura. Amberg. 1617.

646

β. Maned Stag.—3. β. *C. Elaphus Hippelaphus*.

Of considerably larger size, having long hair on the neck. Erxleb. mam. 304.

Cervus germanicus, or German Stag, with round horns which are turned inwards at the sides, and having a mane on the lower part of the neck. Briss. regn. an. 87. n. 2.—Ἰππὶλαφος. Arist. hist.

hist. an. ii. c. 5.—*Ταγελαφος*. Plin. hist. nat. viii. c. 33.—*Tragelaphus*. Gefn. quad. 1101. Charlet. exerc. 12.—*Hippelaphus mas*, or *Rosshirsch*. Jonst. quad. t. 35.—*Brandhirsch*, and *Pferd-hirsch*. Gefn. thierb. 199. 200.

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γ. Corsican Stag.—3. γ. *C. Elaphus corsicanus*.

Is smaller, and of a deep brown colour. Erxleb. mam. 304.

Corsican Stag, with straight antlers, or Small Red Deer. Sm. Buff. iv. p. 115. pl. liii.—Small Stag of Barbary? Shaw's travels, 243.

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δ. Canadian Stag.—3. δ. *C. Elaphus canadensis*.

Having very large horns. Erxleb. mam. 305. Briff. regn. an. 88. n. 3.

Stag. Brickn. North Carol. 109.—*Virginian Stag*. Dale, Phil. Transf. n. 444. p. 384.—*Carolinian Stag*. Lawfon, Carol. 123.—*American Stag*. Catesby, Carol. app. xxviii.

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ε. Chinese Stag.—*C. Elaphus minutus*.

About the size of a Common Dog. Du Halde, i. 122. Penn. hist. of quad. n. 104.

Inhabits the province of Sunnan in China.

The several varieties of the Stag inhabit Europe, Barbary, the north of Asia as far as Japan, and North America.—The Stag lives in herds, of many females with their young, under the guidance of one male; it is in general a gentle shy animal, but becomes furious and dangerous in the rutting season, in the months of August and September, and when teased with the gad-fly. In August the males seek after the females with a violent braying, and fight violently among themselves for the choice. The female, which has seldom any horns, goes eight months with young, and brings very seldom two at a birth. The males drop their horns in February and March, and recover them completely in July. The Stag is a very elegantly made animal, usually about three feet and a half high at the shoulder; its general colour, on the upper parts of the body, is a reddish brown, and whitish on the under parts, being very seldom found entirely white; the younger animals are spotted with white. Under the eyes is situated, on each side, a distinct furrow, or lachrymal fossa: The number of branches or snags on the horns increases yearly, even as far as twenty on each horn; but in extreme age they diminish: The skin makes a pliable and durable leather, usually named *Buck-skin*, or *Doe-skin*, and is employed for making gloves and breeches; the horns are used for making handles to knives, swords, and other instruments, and by chemists for distilling volatile alkali: The Stag feeds on grass, corn, and the twigs, flowers, buds, and catkins of various trees, such as the *Cornel*, *Poplar*, *Willow*, *Hazel*, and others. When in good condition, the flesh, under the name of *venison*, is reckoned a great delicacy.

650

5. Virginian Deer.—6. *Cervus virginianus*. 8.

Has slender horns, bending much forwards, very slightly palmated at the extremities, with numerous branches on the interior edges, and having no brow antlers. Penn. hist. of quad. n. 46. pl. xi. f. 2.

Dama virginiana. Raj. quad. 86.—*Cervus platyceros*. Sloan, Jam. ii. 328.—Chevreuil. Du Pratz, Louif. ii. 69.—Fallow Deer. Lawfon, Carol. 123. Catefby, Carol. app. xxviii. Bricknell, North. Carol. 109.

Inhabits Carolina and Virginia.—Has a considerable refemblance to the Fallow Deer, but is higher at the fhoulders, and has a longer tail and longer legs; the colour likewife is lighter, being an afh coloured or cinereous brown. It is gregarious, very reftlefs, active, and eafily domesticated; and in winter lives much on the mofs, or lichens, which grow on the trunks of trees. The flefh is dry, but ufeful to the Indians, who dry it for their winter provifion. The fkins are a great article of commerce, and make excellent pliable leather for gloves and breeches.

6. Axis.—*Cervus Axis*.

Has erect rounded horns, with three fngs or branches pointing upwards, and no brow antlers.

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α. Spotted Axis.—*C. Axis maculatus*.

The body is spotted with white: The horns are flender, and the firft branch is near the bafe. Syft. nat. ed. Gmel. 179. n. 9. Penn. hift. of quad. n. 47.

Axis. Sm. Buff. vi. 230. pl. clxxviii. clxxix. Plin. hift. nat. viii. c. 21. Raj. quad. 89. Belon, obf. 119.—Speckled Deer. Nieuhoff, in Church. voy. i. 262.

Inhabits the banks of the Ganges and the ifland of Ceylon.—Is about the fize of a Fallow Deer; of a light red colour, beautifully marked with white fspots, and having a white line along the lower part of the fides near the belly: The tail is longifh, of a red colour above and white beneath. This animal is very eafily tamed, and bears the climate of Europe, having bred in the Prince of Orange's menagerie at the Hague.

652

β. Middle Axis.—*C. Axis unicolor*.

The body is of an uniform light red colour: The horns are rough, ftrong, and three-forked. Penn. hift. of quad. n. 48.

Inhabits the dry hilly forefts of Ceylon, Borneo, Celebes, and Java.—Is about the fize of a Stag, being larger than the Spotted Axis; goes together in herds of feveral hundreds; becomes very fat. The flefh is cut into fmall pieces, falted, and dried in the fun, for provifion.

653

γ. White Axis.—*C. Axis albus*.

Refembles the former in every thing, except being white. Penn. hift. of quad. p. 106.

Inhabits with the former, and is reckoned a great rarity.

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δ. Larger Axis.—*C. Axis major*.

Of a reddifh brown colour, with very thick, large, ftrong, and rugged three-forked horns. Penn. hift. of quad. n. 48*.

Inhabits

Inhabits the marshes of Borneo and Ceylon.—Is as large as a Horse, with whitish horns: The animals of this variety are called Elanden, or Elks, by the Dutch, and Mejangan Banjee, or Water Stags, by the Javanese and Malays.

Some species of Deer, probably one or other of the varieties of Axis, are found, along with Oxen, Buffalos, Goats, Hogs, Dogs, Cats, and Rats, in Mindanao, Gilolo, Mandioly, Batchian, and the Papuas islands. The Axis has the sense of smelling in a very nice degree, inasmuch that, when tame, they will not eat bread which has been breathed on; they agree in this circumstance with several other animals of the same genus, and of the Antelope, and Goat kinds.

655

7. Porcine Deer.—8. *Cervus porcinus*. 10.

Has slender three-forked horns; the upper parts of the body are brown, and the under parts ash coloured. Schreber, v. t. ccli. Penn. hist. of quad. n. 49. D°. Syn. n. 42. t. 8. f. 2.

Inhabits India and Borneo.—The body is thick and clumsy, from which the animal has got the name of Hog Deer; but the legs are fine and slender; the body and head measure three and a half feet long, is two feet two inches high at the shoulder, and two inches higher at the rump; the tail is eight inches long. It is caught in pit-falls, covered with some flight materials.

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β. Spotted Porcine Deer.—*C. porcinus maculatus*.

Has slightly three-forked horns, the first snag being very near the head; the body is of a yellowish colour marked with white spots.

Hog-Stag. Sm. Buff. iv. 111. pl. liii. N°. 2.

Is said to have been brought from the Cape of Good Hope.—This seems much the same with the Porcine Deer of Mr Pennant, described above, except the colour, and the spots: The size is very much the same; the nostrils are black, with a blackish band at the corners of the mouth; the colour of the head is mixed with grey, the fore-head and sides of the eyes being brown; the ears are very large, garnished within with white hairs, and on the outside covered with smooth brown hair, mixed with yellow; the top of the back is brownish; the tail is yellow above, and white below; and the legs are of a dark, or blackish, brown colour.

657

8. Muntjac.—11. *Cervus Muntjac*. 12.

Has three longitudinal ribs extending from the horns to the eyes; and a tusk hanging out from each side of the upper jaw. Schreber, v. t. ccliv.

Rib-faced Deer. Penn. hist. of quad. n. 50.

Inhabits Java and Ceylon.—This species is somewhat less than the Roe, and resembles the Porcine Deer in shape. The horns are placed on a bony process, which rises three inches above the skull, and is covered with hair*; they are three-forked, the uppermost snag or branch being hooked. In the

* From not being thoroughly acquainted with the English language, Dr Gmelin applies the hairy covering of the bony process, as described by Mr Pennant, to the horns themselves, and says that they are covered with hair.—T.

the Malay language it is called Kidang, and Munt-jak by the Javanese. It is very common, going about only in single families, and is much esteemed for its flesh.

658

9. Roe.—10. *Cervus Capreolus*. 6.

Has strong, short, rugged, upright, rounded horns, which are two-forked at the ends; the body is of a reddish brown colour. Schreber, v. t. cclii. A. B. Erxleb. mam. 313. Briff. regn. an. 89. n. 5.

Caprea. Plin. hist. nat. viii. c. 53. 58. x. c. 72. xi. c. 37. Aldrov. bifalc. 738. Jonst. quad. 77. t. 31. Raj. quad. 89.—Capreolus. Gefn. quad. 324. 1098. Schwenkf. theriotr. 78. Jonst. quad. t. 33. Muf. Worm. 339. Wagn. Helv. 173. Sibbald. Scot. an. 9. Klein, quad. 24.—Dorcas. Charlet. exerc. 12. Gefn. quad. 296.—Sarn. Rzaczinsk. Pol. 217.—Chevreuil, et Chevette, or Male and Female Roe Deer. Sm. Buff. iv. 120. pl. lvi. lvii.—Ra-djur. Faun. Suec. 43.—Rhabcock. Gefn. thierb. 144. f. p. 144. 145. Ridinger, jagdb. th. t. 9.—Roe. Penn. hist. of quad. n. 51. Arct. zool. n. 7. Roebuck. BRIT. ZOOL. i. 139. 200.

Inhabits Europe and Asia; is frequent in the Highlands of Scotland.—Frequents the lesser woody mountains, and, in winter, feeds on the young shoots of Fir and Beech. It is an active shy animal, which generally keeps in small flocks or families; never grows fat, but is reckoned delicate venison. In summer the hair is very short and smooth, being dark grey at the roots, and deep red at the ends; in winter the hair grows very long, and becomes hoary at the ends, except on the back, where it is often very dark coloured; the legs are very slender, and have a tuft of long hair below the first joint of each hind leg; the rump and under side of the tail are white; the face is blackish. This species is about four feet long, two feet three inches high before, and four inches higher behind; the horns are from six to eight inches long; are cast in autumn, and recovered during winter. The female goes twenty or twenty-two weeks with young, and has often twins in the month of April. Besides the two-forked extremity, each of the horns have one, two, three, or five lateral snags or branches, according to age. Charlevoix mentions Roes in North America; but, as the other writers, Lawson, Catesby, Kalm, and Du Pratz, on the natural history of that country, do not speak of them, he is probably mistaken.

659

β. White Roe.—*C. Capreolus albus*.

Is exactly like the Roe, but pure white, with black hoofs and nose. Sm. Buff. iv. 134.

This animal, which was a female, was caught in Franche Comté, and is probably only an accidental, and a very rare variety of the Roe.

660

10. Aha.—1. *Cervus pygargus*. 1.

Has no tail; the horns are three-forked. Pallas, It. i. 97. 453. Schreber, v. t. ccliii.

Cervus Aha. S. G. Gmelin. It. iii. 496. t. 56.—Tail-less Roe. Penn. hist. of quad. n. 51. 4. Arct. zool. i. 33. A.

Inhabits the woody mountains of Russia and Siberia beyond the Volga, and in Hircania.—This species resembles the Roe, but is considerably larger; it is of the same deep red colour, with a large bed of white on the rump and buttocks, extending up the back; the fur is excessively thick, and in spring

spring is quite rough and erect; on the belly and limbs it is yellowish; the space round the nose, and the sides of the under lip are black, but the point of the lip is white; the hairs of the eye-lids, and round the orbits, are long and black; the horns are very rugged at the bases, and full of knobs; the ears are covered on the inside with a very thick white fur. At the approach of winter, this animal becomes hoary, and descends into the plains; it is called Dikeja Roza by the Russians, Saiga by the Tartars, which name is used in Russia for the Scythian Antelope, and Ahu, or Aha, by the Persians.

661

II. Mexican Deer.—9. *Cervus mexicanus*. II.

Has strong, thick, rugged horns, bending forwards, three-forked at their extremities, and having one erect snag about two inches above the base: Of a reddish colour. Penn. hist. of quad. n. 52.

Cervus major, or Biche des bois, with very short small horns. Barrere, Fr. equin. 151.—Teutal-maçame. Hernand. mex. 324.—Baieu. Bancroft, Guian. 122.

Inhabits New Spain, Guiana, and Brasil.—This species is about the size of the Roe; it is of a reddish colour, and is spotted with white when young. The head is large, with large bright eyes, and a thick neck. The horns are apt to vary in the number of their branches; and the flesh is much inferior to venison.

*** Uncertain species.

Besides these above described, there are several species or varieties of Deer, mentioned in authors, which are so slightly noticed as to render it difficult to determine whether they are distinct species, or only varieties of some of those already taken notice of.

662

α. Tema-maçame.—*Cervus Temama*.

Hernand. hist. nat. mexic. p. 325.

663

β. Cuguacu-apara.—*Cervus Cuguapara*.

Marcgr. Bras. 235. Piso, Ind. 97. f. p. 98.

664

γ. Cuguacu-ete.—*Cervus Cuguete*.

Marcgr. Bras. Piso, Ind. loc. cit.

665

δ. Biche des Bois.—*Cervus sylvaticus*.

Barrere, France equinoct. 15.

666

ε. Biche des paletuviers.—*Cervus paludosus*.

Barrere, in loco citat.

667

ζ. Mazame.—*Cervus Mazame*.

Smellie's ed. of Buffon, vii. 30.

668

n. Cariacou.—*Cervus Cariacou*.

This animal, from having no horns, seems the female of some species of Deer, whether of any of those already described is uncertain. Sm. Buff. vii. 34. pl. cci.

669

θ. Barallou Hind.—*Cervus Barallou*.

Smellie's ed. of Buffon, iv. 135.

670

ι. Wood Hind.—*Cervus nemorosus*.

Smellie's ed. of Buffon, in loco citat.

671

κ. Savanna Hind.—*Cervus pratensis*.

Smellie's ed. of Buffon, in loco citat.

672

λ. Indian Deer.—*Cervus indicus*.

Mr Pennant describes a pair of horns in the Museum of the Royal Society, which belong to a species of Deer, and gives an engraving of them, Hist. of quad. p. 110. pl. xi. f. 3.; these are, by Grew, in his rarities, p. 24. said to belong to an Indian Roebuck, but they are evidently from some very different species. They are very thick and strong, and the base is very rugged; a little above the base of each a sharp snag rises perpendicularly, which has a smaller snag at its base; the upper part of each horn turns forwards, is broad, divided into two branches, and is palmated, with numerous snags. These horns are each sixteen inches long, and the same distance between their tips.

673

μ. Squinatou.—*Cervus Squinatou*.

Another obscure species is mentioned by Mr Pennant, under the name of Squinatou, or Scenoon-tung, which inhabits the country west from Hudson's Bay; all that is known of this animal, is, that it is less than a Buck, and larger than a Roe, with finer legs, and sharper head. Penn. hist. of quad. p. 110.

674

ν. Grey Deer.—*Cervus guineensis*.

The animal named Grey Deer, n. 53. by Mr Pennant, and Guinea Deer, by Gmelin, Syst. nat. ed. Gm. 181. n. 7. which is described from the Mus. Ad. Fr. i. 12. is an obscure species, and it is doubtful whether it belongs to the genus of Deer, Musk, or Antelope, as the specimen described had no horns. It is of the size of a Cat, of a grey colour on the upper parts, and blackish underneath, having longish ears; with a large black spot above the eyes, a black line between the ears, a perpendicular black line on each side of the throat, the middle of the breast black, the fore legs and sides of the belly, as far as the hams, marked with black, and the under side of the tail is black.

675

ξ. Unknown Deer.—*Cervus anomalus*.

There are in Mr Weir's Museum at Edinburgh the horns of a small species of Deer, said to have come from some part of America, which I have not seen described in the writings of any naturalist; they are about eight inches long, and stand erect; their beams and branches are quite thin and flattened, dividing each into two branches, which are each two forked; from the lower part of each beam a single snag projects forwards, of the same thin flattened appearance with all the rest; all the snags and branches end square and abrupt. These are engraved for this work.—T.

XXXVI. GIRAFFE.—35. *CAMELOPARDALIS*.

Has simple persistent horns, covered with skin, blunt and abrupt at the ends, and terminated with a tuft of black hair. In the lower jaw are eight broad, thin fore-teeth; the outermost, in each side, being deeply divided into two lobes.

Of this genus there is but one species known; or rather the animal, though nearly allied to the Deer and Antelope kinds, is so singular in its structure as to require being considered, in system, as a distinct genus.

676

1. *Camelopardalis*. — 1. *Camelopardalis Giraffa*.

Is remarkably higher at the shoulder than at the rump. Schreber, v. t. cclv.

Camelopardalis. Plin. hist. nat. viii. c. 18. Dion Cassius, xliii. Oppian, cyneg. iii. 461. Gefn. quad. 160. Aldrov. bif. 927. f. p. 931. Jonst. quad. 98. t. 39. 45. Charelet. exerc. 13. Raj. quad. 90. Pr. Alp. Aeg. i. 236. t. 14. f. 4. Ludolf, Æth. i. c. 10. n. 33. comm. p. 149. Prænestine pavement, in Schaw, suppl. 88.—*Cervus Camelopardalis*. Syst. nat. ed. xii. 92. n. 1. Hasselq. It. Pal. 203. Act. Upsal. 1750, p. 15.—Orafius, or Orasius. Vincent. spec. doct. 19. c. 97. Albert. de anim. 223.—Giraffa, Gyraffa, or Giraffe. Nieremb. hist. nat. 191. Belon, obs. 118. f. p. 119. Theven. cosmogr. i. 388. b. fig. fol. 389. a. Lobo, Abyss. i. 292. Sm. Buff. vii. 107. pl. ccxi. Leo, Afr. 337. Klein, quad. Briss. quad. 61.—*Camelus indicus*, or Indian Camel. Jonst. quad. t. 40.—*Camelopard Giraffe*. Penn. hist. of quad. n. 15.—*Tragus Giraffa*. Zimmerm. 534.—*Camelopard*. Gefn. thierb. 236. f. p. 237. 238.

Inhabits Sennar, Ethiopia, and the interior parts of Africa; rarely in Abyssinia, and is never found in Guinea; it extends southwards to the country behind the Dutch settlements at the Cape of Good Hope.—This singular quadruped feeds chiefly on the leaves and tender shoots of trees, but likewise grazes occasionally, at which time it is obliged to spread its fore feet very wide. It is very gentle, timid, and shy; runs very awkwardly, and is easily taken, but is very scarce; when about to lie down, it kneels like the Camel; when standing erect and holding up its head, it measures seventeen feet from the crown of the head to the ground, eighteen feet from the point of the nose to the end of the tail, is only nine feet high at the rump, the neck is seven feet long, and the distance from the withers to the rump is six feet. This is a very handsome animal, of a dirty white, or mixed reddish and white colour, marked with numerous large rusty spots; the head somewhat resembles that of a Horse, having middle sized, erect, pointed ears, and short erect horns about six inches long, which are covered with a hairy skin; these are blunt, as if cut off at the ends, and tufted with a brush of coarse black hairs; the neck is long, thin, and erect, and is provided on the ridge with a short erect mane, which extends along the back almost to the origin of the tail; the tail is long and round, reaching to the second joint of the hind legs, and is tufted with long, flowing, coarse hairs at the end. It is a vulgar error that the fore legs are longer than those behind, for the great disproportion between the height of the fore and hind parts, depends on the great depth of the shoulders, and the length of the neck.

XXXVII. ANTELOPE.—36. *ANTILOPE*.

Has persistent horns, which are hollow, and filled with a flint or spongy bone; they are mostly round and erected, and are frequently twisted spirally, or surrounded with rings. The lower jaw has eight broad fore-teeth; the upper jaw none; and there are no tusks in either.

To this character Mr Pennant adds, that the limbs are light and elegantly made; and that the insides of the ears are marked with three longitudinal feathered lines of hair. None of the numerous species of this genus are found in America; they are mostly confined to Asia and Africa, inhabiting the hottest regions of the old world, or the temperate zones near the Tropics, only two species being found in Europe, the Chamois and Saiga. They chiefly inhabit hilly countries, though some reside in the plains; and some species form herds of two or three thousands, while others keep in small troops of only five or six together. They often clamber up rocks, and browse like Goats, and frequently feed on tender shoots of trees. They are very elegantly made, active, restless, timid, shy, and astonishingly swift, running with vast bounds, and springing or leaping with surprising elasticity; frequently stop for a moment to gaze at their pursuers, and then resume their flight. The Antelope forms an intermediate genus between the Deer and Goat, though arranged with the latter by Linnaeus, in his former editions, and by several other naturalists; but Dr Gmelin, in imitation of Pennant, Erxleben, and Pallas, has formed them with great propriety into a distinct genus. In the form of their bodies they agree with Deer, and in the circumstances of their horns they resemble the Goats; they have all gall-bladders; distinct lachrymal gutters, or pits, under the eyes; a plait of the skin divided into several cells in the groins; brushes of hair on the knees; and beautiful black eyes. In general their flesh is excellent, though some species have a rank hircine, or musky flavour.

677

1. Blue Antelope.—1. *Antilope leucophaea*. 1.

Of a bluish colour; the horns are roundish, annulated*, and bent backwards in an arch. Schreber, v. t. cclxxxviii. Pall. misc. zool. 4. Spic. zool. i. 6. and xii. 12.

Blauer Bock. Kolben, 141.—Blue Antelope. Penn. hist. of quad. n. 18. fig. p. 92.—Blue Goat. Kolben's Cape, Eng. ed. ii. 114.—Bouc-chamois. Journal Hist. 58. and fig. Br. Mus. Lev. Mus.

Inhabits the country to the north of the Cape of Good Hope.—This species is larger than a Fallow Deer; when alive the fur is of a fine blue colour, and velvet-like appearance, but when dead it changes to a bluish grey with a mixture of white; the under parts of the body are white, and there is a white blotch under each eye, and on the fore part of each foot; the ears are sharp pointed, and above nine inches long; the horns are arched, bending backwards, and marked with twenty prominent rings, but become smooth, taper, and sharp at the ends; the hair on the fur is long; the tail

* The word annulated is employed in the definition, for shortness, to signify that the horns are surrounded by prominent rings.—T.

tail is about seven inches long, and is terminated by a tuft of longish hairs. This species, according to Mr Pennant, from the length of its hair and form of the horns, forms the link between the Goat and Antelope kinds, being allied to both.

678

2. Lerwee.—2. *Antilope Lerwia.* 2.

Of a reddish colour, with a remarkable tuft of hair on the nape of the neck: The horns are wrinkled, bent backwards, distant in the middle, and approach each other at the base and points. Pallas, *spic. zool.* xii. 12.

Antilope Kob, with the horns annulated at the base, bent outwards in the middle, and much approaching at the tips. *Erxl. mamm.* 293. n. 23.—Kob, or Little brown Cow. *Sm. Buff.* vi. 406. D°. *Fr. ed.* xii. 210. t. xxxii. f. 1.—Fish-tall, or Lerwee. *Shaw, It.* i. 313.—Gambian Antilope. *Penn. hist. of quad.* n. 41.

Inhabits Africa, chiefly about the rivers Gambia and Senegal.—Is about the size of the Fallow Deer; and is particularly remarkable by the tuft of hair on the nape of the neck, and by having long brushes of hair on the knees of the fore legs. The horns are about thirteen inches long, at the base they measure five inches and a half in circumference, their lower parts are surrounded with eight or nine rings, the middle parts are very distant, but the points, which are smooth, come very near each other.

679.

3. Chamois.—3. *Antilope Rupicapra.* 3.

Has smooth, rounded, erect horns, which are hooked backwards at the ends. *Schreber, v. t.* cclxxix.

Antilope rupicapra. *Pall. misc. zool.* 7. *Spic. zool.* i. 4. and xii. 12. *Erxleb. mamm.* 268. n. 1.—*Capra rupicapra.* *Syst. nat. ed.* xii. 95. n. 4.—*Hircus rupicapra.* *Briff. regn. an.* 66. n. 4.—*Αἰγός*. *Oppian. cyneg.* ii. 338.—*Rupicapra.* *Plin. hist. nat.* viii. c. 53. xi. c. 37. *Gefn. quad.* 321. f. p. 319. *Aldr. bif.* 725. f. p. 727. *Jonst. quad.* 74. t. 27. 32. *Charlet. exerc.* 9. *Wagn. helv.* 183. *Raj. quad.* 78. *Klein, quad.* 17. *Scheuchz. It. Alp.* i. 155. *Rzacznf. Pol.* 223.—Chamois, Cemas, or Yfard. *Obf. de Belon*, 54.—Yfard, Yfarus, or Sarris. *Gaston, ap. Fouilloux Vener.* 99.—Gems. *Gefn. thierb.* 140. *Ridinger, jagdb. th. t.* 12.—Cemas, or Kemas, of *Ælian.* and *Herodicus.* *Bochart, hierozoic.* iii. c. 22.—Chamois. *Perr. an. i.* 201. t. 29. *Sm. Buff.* vi. 363. pl. clxxxviii. *Penn. hist. of quad.* n. 17.

Inhabits the Alps of Dauphiny, Savoy, Swisserland, and Italy; the Pyrinean, Carpathian, Grecian, Cretan, Caucasian, and Taurus mountains.—Dwells in the most inaccessible rocky parts of the mountains, but seldom so high as the Ibex, and generally keeps in considerable flocks; feeds, mostly before sunrise and after sunset, on the twigs of shrubs, herbs, and roots, being particularly fond of the *Meum athamanta*, and certain balls, found in their stomachs, called *Ægagropilae*, are supposed by *Kramer, Hist. nat. Austr.* 320. to be occasioned by that kind of food; in winter they retreat into hollows of the rocks to avoid the avalanches, or shooting of the snow. This animal has very nice sensations of smelling, sight, and hearing, and is exceedingly shy, timid, and swift; each herd has a leader, who keeps watch on an eminence while the rest are feeding, and gives a sort of hiss, as a signal, on seeing an enemy; they are hunted in winter for their skins, which make excellent soft shamoy leather, and for their flesh, which is reckoned very delicate; the sport is both hazardous and

laborious, on account of the rugged mountains and rocks which they frequent, and they are mostly shot with rifled guns. The Chamois is about the size of an ordinary Goat, but has longer limbs, and the fur, at the beginning of summer, is shorter; it is of a deep reddish brown colour, with a blackish line along the back; the fore-head, top of the head, cheeks, throat, and insides of the ears, are white; the upper lip is half divided; the knees have brushies, or bunches of hair; the tail is short, and blackish underneath; the belly is yellowish; the hoofs are much divided: In both sexes the horns are black, slender, upright, and wrinkled, except at their extremities, which are hooked backwards; and behind each is a large orifice in the skin. They procreate in October or November, and in March or April the female has two or three young ones at a birth.

680

4. Nanguer.—4. *Antilope Dama*. 4.

The horns are hooked forwards at the ends; the upper parts of the body are tawny yellow, the under parts white, with a white spot on the chest. Sm. Buff. vi. 309. pl. cxcvii. Schreber, v. t. cclxiv.

Antilope Dama, of a white colour, the back tawny, and having a tawny band at the region of the eyes. Pallas, misc. zool. 5. Spic. zool. i. 8. and xii. 13. n. 4.—Dama. Plin. hist. nat. viii. c. 53. xi. c. 37. Gefn. quad. 334. Aldr. bif. 729. Jonst. quad. 75. t. 27. Raj. quad. 83.—Swift Antelope. Penn. hist. of quad. n. 28.; and, in his opinion, the *Κημας*, or Cemas, of Ælian, lib. xiv. c. 14.

Inhabits Senegal.—This animal is three feet ten inches in length, from the nose to the origin of the tail, and two feet eight inches high at the shoulder; the greater part of the body is white, but the back, upper parts of the sides, and the head, are tawny, or yellowish; there are, however, varieties in this species as to colour. Both sexes are furnished with horns, which are round, about eight inches long, considerably bent or hooked forwards, and sharp pointed; there are only six fore-teeth in the lower jaw. The Nanguer is very swift, and is easily tamed; Ælian compares the flight of the *Κημας*, which Mr Pennant supposes to be the animal here described, to the rapidity of a whirlwind.

681

5. Nagor.—5. *Antilope redunca*. 5.

Of a reddish colour, with stiff upright hair: The horns are bent forwards at the ends. Schreber, v. t. cclxv.

Antilope redunca. Pallas, misc. zool. 5. Spic. zool. i. 8. xii. 13. n. 5.—Nagor. Sm. Buff. vii. 38. pl. ccii.—Red Antelope. Penn. hist. of quad. n. 29.

Inhabits Senegal, and at the Cape of Good Hope.—The length of this species is about four feet, its height two feet three inches; the horns are about five inches and a half long, with two slight smooth rings at the base, and are bent gently forwards; the ears are almost as long as the horns: The general colour is a pale reddish, palest on the chest. According to Dr Gmelin, this species is the *Κημας*, of Ælian.

682

6. Biggel.—6. *Antilope Tragocamelus*. 6.

The horns are bent forwards; the neck has a short mane; on the shoulders is a large tufted hump; the tail is long, and is terminated with flowing hairs. Schreber, v. t. cclxii.

Antelope

Antelope Tragocamelus. Pallas, misc. zool. 5. Spic. zool. 1. 9. xii. 13. n. 6. Erxleb. mamm. 279.—Biggel. Mandesloe, voy. in Harris's coll. of voy. i. 775.—Quadruped from Bengal. Parsons, in Phil. Transf. N^o. 476. p. 465. t. 3. f. 9. D^o. abrid. xi. 898. t. 6.—Indostan Antelope. Penn. hist. of quad. n. 26.

Inhabits India.—This animal resembles the Camel in the reversed arch of its neck, and in its manner of kneeling down; it is near five feet high, when measured to the top of the hump. The hair is soft, short, smooth, and light ash coloured, in some parts dusky, beneath the breast and under the tail it is white, and on the fore-head is a black spot of a rhomboid figure; the tail is about twenty-two inches long, and is terminated with longish hairs; on the lower part of the chest the skin hangs loose like the dewlap of a cow, and is covered with longish hair; the hinder parts of the body resemble those of an Ass; the limbs are slender; the horns are about seven inches long.

683

7. Nylgau.—7. *Antelope picta*. 7.

The horns are bent forwards; the neck and part of the back has a short mane; the fore part of the throat has a long tuft of black hairs; the tail is long, and tufted at the end. Hunter, in Phil. Transf. lxi. 170. t. v.

Antelope picta, or painted Antelope. Schreber, v. t. cclxiii. A. B. Pallas, spic. zool. xii. 14. n. 7.—Antelope albipes. Erxleb. mam. 280.—White-footed Antelope. Penn. hist. of quad. n. 27. pl. vii.

Inhabits India.—This species is four feet and an inch high at the shoulder. The male is of a dark grey colour, with short horns; these are triangular and distant at their bases, and blunt at the ends, which bend a little forwards; there is a large white spot on the neck, just above the tuft of hair, another between the fore legs, one on each side behind the shoulder joint, one on each fore foot, and two on each hind foot, above the hoof: The female has no horns; is of a pale brown colour; with two white, and three black bars on the fore part of each foot immediately above the hoofs: In both, the neck and part of the back have a short black mane, and the long tail is tufted at the end with black hairs; the ears of both are large, and similarly marked with two transverse black stripes; and both have a long tuft of black hairs on the fore part of the neck or throat, about the middle. This animal is usually very gentle and easily tamed, but sometimes the male is very vicious; they have been bred in England; the female is supposed to go nine months with young, and brings two at a birth. The name Nyl-ghau, used in India, signifies Blue, or Grey Bulls.

684

8. Saiga.—8. *Antelope Saiga*. 8.

The horns are pale and almost transparent, distant at the bases, and bent in form of a lyre *, having each three curvatures; the nose is very cartilaginous, much arched, thick, and seems truncated at the end. Pallas, misc. zool. 6. Spic. zool. xii. 14. n. 8. and

21.

* In describing the horns of the species of this genus, from the peculiarities of which some of the most striking specific characters are derived, Dr Gmelin, in several, employs the term *lyratus*, or bent in form of an ancient lyre, that is receding in the middle, approaching towards the summits, and again receding from each other.—T.

21. t. 1. and 3. f. 6. 9. 10. 11. S. G. Gmelin, It. ii. 174. t. 12.; and Nov. com. Petrop. xvi. P. i. 512. Forster, in Phil. Transf. lvii. 344.

Antelope scythica, or Scythian Antelope. Pall. sp. zool. i. 9. Faunul. sinenf. Erxleb. mamm. 289.—Scythian Antelope. Penn. hist. of quad. n. 37.—Capra tartarica, or Tartarian Goat. Syst. nat. ed. xii. 97. n. 11.—Ibex imberbis, or Beardless Ibex. J. G. Gmel. Nov. com. Petrop. v. 345. vii. fumm. 39. t. 19.—Saiga. J. G. Gmel. It. Sib. i. 212. Sm. Buff. vi. 393. D^o. Fr. ed. xii. 198. t. 22. f. 2. Bell's trav. i. 43.—Colus. Strabo, geogr. vii. Gefn. quad. 893. Jonst. quad. t. 27.—Suhac. Aldrov. bifulc. 763. Charlet. exerc. ii. Rzaczinski, Pol. 224. auct. 320.

Inhabits Poland, Moldavia, the Carpathian mountains, Caucassus, about the Caspian and Euxine seas, near lake Aral, in the Altaic chain, and generally from the Danube to the Irtish, never going farther north than about the fifty-fifth degree of latitude.—They dwell mostly in open deserts, which abound with salt springs, and feed much on saline, acrid, and aromatic vegetables. In autumn they collect into vast flocks, and migrate regularly into the southern deserts; in spring they return northwards, and divide into small parcels: They are exceedingly shy and timid; amazingly swift, but soon fatigued; their voice resembles the bleating of sheep; they have a very quick sense of smelling, which obliges the hunters always to approach them against the wind; and, when feeding or resting, the flock is always guarded by centinels; in summer their fight is very weak. When taken young they are very easily tamed, and become very docile; but the old ones are so obstinate, when taken, as to refuse nourishment. They frequently walk backwards when feeding, and pluck the grass on each side; and in walking they carry their heads very high. The Saiga is about the size of a Fallow Deer, being a little more than four feet long; it has six fore-teeth in each jaw, in which it differs not only from the other species of the genus, but from the whole order: The fur in summer is very short, of a grey colour, mixed with yellow, and darker on the legs below the knees; the space about the cheeks is whitish; the fore-head and crown of the head are hoary, and covered with long hairs; the under side of the neck and body are white; the knees are furnished with brushes or tufts of hair; the tail is four inches long, naked below, covered above with upright hairs, and tufted at the end: In winter the fur becomes long, rough, and hoary. The head is large, and in the living animal the nose is much arched, thick, and swelling, with very open nostrils, but after death it grows flaccid, having no os nasi, or septum; the horns are about eleven inches long, of a pale yellow colour, almost transparent, the greatest part of their length is surrounded with rings, and the extremities are smooth. The female has no horns, her fur is softer than that of the male; the rutting season is in November, at which time the males, otherwise very timid, will fight boldly in defence of their mates; and before the middle of May the females produce mostly one at a birth, the young animal being covered with a very soft, waved, and curled fleece, like that of a Lamb. They are hunted with guns, dogs, or even with eagles, for the sake of their horns and skins; they grow very fat in summer, but the flesh is scarcely eatable till it grows cold after being dressed, owing to a rank or balsamic taste it acquires from the nature of their food. Sometimes this animal is found with three horns, and, at other times, though very rarely, with only one; indeed the horns of this species are subject to very great variety in figure, notwithstanding the description given in the character; but they may always be distinguished by their pale colour and semitransparency, most other Antelopes having black opaque horns.

Of a reddish colour, having the horns bent in form of a lyre, and no brushes on the knees.

Pall. spic. zool. xii. 14. n. 9. and p. 46. t. 2. 3. f. 14.—17.

Antelope. Bell, trav. i. 311. 319.—*Capra flava*, Hoang Yang, Whang Yang, or Yellow Goat. Du Halde, Chin. ii. 253. 278. 290.—*Ablavos*. Le Brun, i. 115.—*Capra gutturosa*. Mefferichmidt, mus. Petrop. i. 336. n. 12.—*Caprea campestris gutturosa*. J. G. Gmel. nov. com. Petrop. v. 347. t. 9.—Tzeiran. Sm. Buff. vi. 405.—Chinese Antelope. Penn. hist. of quad. n. 36.

Inhabits the deserts of Mongalia, the whole southern deserts from China to Thibet, along the river Amur, in Tangut, the northern borders of India, and among the Burats south of lake Baikal.—This animal is about the same size and form with the Common Antelope, being about four feet four inches long, and two feet and a half high at the shoulders; the horns are about nine inches long, surrounded with about twenty rings, or annular wrinkles, almost to the ends; they recline backwards, diverge at the upper parts, and approach at the extremity; are of a yellow colour and opaque, in which latter circumstance they differ from the horns of the Saiga, which are almost transparent; the lachrymal furrows under the eyes are very small; on the fore part of the neck is a large moveable protuberance, occasioned by a singular conformation of the wind-pipe; the cells in the groins are very large; in summer the fur is short, close, and tawny, or of a rusty grey colour, on the upper parts of the body, and whitish on the lower parts; but in winter it grows long, rough, and hoary, so as to seem almost white at a distance: The head is thick, with a blunt nose, convex on its upper part; the ears are small and pointed; the tail is short. This species keeps in considerable flocks, mostly in mountainous and rocky places, or in dry and sunny pastures, feeding only on sweet and tender herbs; they are extremely swift, and take prodigious leaps, and, though very shy and timid, will not take the water even when driven to extremity, and are equally fearful of woods; when taken young they are easily tamed; they run in a regular file, which is led by an old animal; they feed in small parcels, during spring and summer, but collect into great flocks before winter. The male has a remarkable bag or follicle, at the orifice of the prepuce, which is sometimes filled with a waxy or glutinous matter, but is generally empty; the female has no horns, but is of the same colour with the male; they procreate in winter, considerably later than the Saiga, and the female brings forth about the beginning of June. They are much hunted by the Tartars, who are fond of their flesh, and the horns are a considerable article of commerce with the Chinese.

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10. Persian Antelope.—10. *Antelope subgutturosa*. 23.

The horns are bent in form of a lyre; the upper parts of the body are of a brownish ash colour, the under parts pure white, with a yellowish white stripe along each side. Schreber, v. t. cclxx. B. Galdenstedt, in act. Petrop. an. 1778, i. 251. t. 9.—12.

Inhabits Persia between the Caspian and Euxine.—This species resembles the Roe in size and appearance; it lives in large flocks, feeding chiefly on the *Artemisia pontica*; the horns are above thirteen inches long, and smooth at the points; the throat has a degree of protuberance at the fore part, owing to the size of the head of the wind-pipe; and the knees are provided with brushes. The female brings forth in May. The flesh of this species is reckoned extremely good.

687

11. White-faced Antelope.—11. *Antelope pygarga*. 10.

The horns are bent in form of a lyre: The general colour is a hoary red, with a blood red or bright bay neck, a deep red band along the sides, white buttocks, and a white face. Pall. sp. zool. i. 10. xii. 15. n. 10. Schreber, v. t. cclxxiii. Sparrman, act. Stock. 1780, 3. 4.

Antelope

Antelope Dorcas. Pall. misc. zool. 6.—Cervicapra. Houttyn, Linn. ed. belg. iii. t. 24. f. 1.—Klipspringer, or Springbock. Sparrman, voy. ii. 224. pl. 5.—White-faced Antelope. Penn. hist. of quad. n. 37.

Inhabits the countries to the north of the Cape of Good Hope.—This species is about five feet four inches long, and three feet high at the shoulders: It runs with great velocity, and makes astonishing bounds, even on the most precipitous and rocky places, so that it is caught with great difficulty, though its flesh is much esteemed: The horns are about sixteen inches long, they bend outwards in the middle, and approach at the points; on the males the lower third of each horn has six or seven rings, and the rest is smooth, while on the females the horns have no rings; the ears are about seven inches long: The face is white; the cheeks and neck are bright bay; the back is brown ash colour mixed with red; the sides, flanks, and shoulders are deep brown; the belly, rump, and middle of the back behind, are white; a dark brown list begins at the back of the neck, on the ridge of the back, which soon divides and reaches down the outer sides of the hind thighs; and a similar band, from the shoulder joint, divides the sides from the belly, and extends down the outside of each fore leg; the tail is about seven inches long, and is terminated with some longish black hairs; the legs are slender, and the hoofs are short.

Dr Gmelin quotes the Koba of Buffon and Mountain Antelope of Ruffel as synonyms of this species, but, at the same time, denotes his uncertainty by a point of interrogation, and says, from this circumstance, that it is perhaps found in hither Asia; but, on the authority of Mr Pennant, I have referred the Koba to another species to be described hereafter, and it is hardly to be supposed that the same species should be found near Aleppo, and in the southern extremity of Africa, without existing in the intermediate places; besides the Count de Buffon refers Ruffel's animal to the Pafan, or Egyptian Antelope.—T.

12. Springer Antelope.—*Antelope saltans*.

The horns are slender, twice contorted, and annulated half way: The general colour is a pale brown, the chest, belly, insides of the limbs, buttocks, and half way up the back, are white; with a broad chestnut coloured band along the sides. Penn. hist. of quad. n. 35. Masson, in Phil. Transf. lxvi. 310.

This animal, if different from the White-faced species, inhabits at the Cape of Good Hope.—It is less than a Roe, and weighs about fifty pounds; it migrates annually from the interior parts of the country in small herds, continues for two or three months near the Cape, and then goes off towards the north, in herds of many thousands; sometimes, generally after an interval of seven or eight years, this species comes from the north in flocks of many hundred thousands, probably compelled by excessive drought, and, spreading over Caffraria, desolates the whole country, hardly leaving a blade of grass; they are attended in their migrations by Lions, Hyaenas, and other beasts of prey. The face, cheeks, chin, nose, and fore part of the neck are white; with a dusky line, which passes from the base of each horn down the side of the face, involving the orbits, to the corner of the mouth; the most remarkable part of its description is, that, when alarmed, it has the power of expanding the white stripe above the tail into a circular form, which returns again to its linear form when the animal is at rest. After all, it seems uncertain if there be any difference between this animal and the White-faced Antelope immediately preceding; for, in the form of their horns and disposition of the dark coloured bands, they exactly agree.—T.

89

13. Barbary Antelope.—12. *Antilope Dorcas*. 11.

The horns are bent in form of a lyre: The upper parts of the body are reddish brown, the under parts and buttocks white, and both are divided by a dusky line along the sides. Pall. misc. zool. 6. n. 7. Spic. zool. i. 11. n. 8. xii. 15. n. 11. Schreber, v. t. cclxix. Sparrm. act. Stock. 1778, ii. n. 4.

Capra Dorcas. Syft. nat. ed. xii. i. 96. n. 10.—Hircus africanus, f. Gazella africana; African Goat, or Antelope. Briff. regn. an. 69. n. 10.—Gazella africana, or African Antelope. Raj. quad. 80.—*Δορκας*. Ælian, hift. an. xiv. c. 4.—Dorcas, of the ancients, and Tzebi, of the Bible. Shaw, It. 152. 357.—Gazelle, or Barbary Antelope. Sm. Buff. vi. 397. pl. cxciv. Penn. hift. of quad. n. 32. fig. in the title page.

Inhabits Barbary, Egypt, Arabia, and Syria.—This animal is about half the size of a Fallow Deer; the horns are about twelve inches long, and furrounded with about thirteen prominent rings, a small part of the ends only being smooth; they incline first backwards, then bend a little outwards in the middle, and the ends, which approach, revert somewhat forwards; the knees are each furnished with a long brush, or tuft of hair; the tail is short, covered with longish black hairs, and is white underneath. This species is supposed by Dr Gmelin to be the Dishon of Moses; perhaps the animal mentioned in the books of Solomon, and, in our translation, named the Roes of the mountains: It goes in large flocks, is easily tamed, though naturally very timid, and is reckoned excellent eating.

90

14. Kevel.—13. *Antilope Kevella*. 12.

Has large horns, which are flattened, and bent in form of a lyre: The fur is yellowish, with pale streaks; and a dark coloured band runs along each side. Pall. misc. zool. 7. n. 9. Spic. zool. i. 12. n. 9. xii. 15. n. 12. Schreber, v. t. cclxx.

Ahu. Kaempf. amoen. 408.—Kevel. Sm. Buff. vi. 400. pl. cxcv.—Flat-horned Antelope. Penn. hift. of quad. n. 33.

Inhabits Barbary, Senegal, and Persia.—Is about the size of a small Roe: It lives in large flocks, and, like most species of the genus, is reckoned very delicate eating, though it has a musky odour when alive. In both sexes the horns are furrounded with prominent rings, usually from fourteen to eighteen, except the ends, which are smooth; they are bent in the same manner with those of the former species, and in general the two animals resemble each other very much, except that the horns of this species are flatted, and have a greater number of rings.

91

15. Corine.—14. *Antilope Corinna*. 24.

Has very slender, short, smooth, straightish horns, bent slightly into the form of a lyre: The upper parts of the body are yellowish tawny, the under parts white, with a dusky stripe along the sides, and two lines on each side of the face, the upper one white and the other black. Pall. misc. zool. 7. n. 10. Spic. zool. i. 12. and xii. 15. n. 12. β. Schreber, v. t. cclxxi.

Corine. Sm. Buff. vi. 401. pl. cxcvi. Penn. hift. of quad. n. 38. Lev. Mus.

Inhabits Senegal.—This animal is less than a Roe; the neck, body, and flanks are of a tawny yellow colour, the insides of the thighs and belly are white, and a dark line, along the sides, divides the two colours; the knees are tufted with hair; the ears are large; the horns are about six inches long, almost upright, bending a little outwards in the middle, and somewhat approaching at the tips, the lower parts being surrounded with circular wrinkles. This species resembles the Kewel, in colour, size, swiftness, and musky odour; but differs very much from it in the figure of the horns; though Dr Gmelin, following the celebrated Pallas, is disposed to suspect that it is the female of that species.

692

16. Bubalis.—15. *Antilope Bubalis*. 13.

The horns are thick, twisted spirally, annulated, bent in form of a lyre, almost straight and upright at their ends; the head and tail are somewhat lengthened. Pall. sp. zool. i. 12. n. 10. xii. 16. n. 13.—Erxleb. mam. 291.

Bovæalis. Oppian, cyneg. ii. 300. Arist. an. iii. c. 2.—Bubalus. Plin. hist. nat. viii. c. 15. Gefn. quad. 330. Aldrov. bif. 303. 365. 735. Jonst. quad. 52.—Yachmur, of the Bible. Shaw, It. 151. 358.—Bucephalus. Caj. op. Gefn. quad. 121. Raj. quad. 81.—Capra Dorcas. Houttuyn, ed. Lin. belg. 213. t. 24. f. 3.—Antilope buselaphus. Pall. misc. zool.—Bubale. Buff. Fr. ed. xii. 294. t. 37. 38. f. 1. 3.—Bubalus. Sm. Buff. vii. 1.—Vache de Barbarie. Act. Paris. i. 205. Valent. amphith. zoot. 88. t. 14.—Cervine Antilope. Penn. hist. of quad. n. 39. Lev. Mus.

Inhabits Africa, especially Barbary, but is likewise found near the Cape of Good Hope and in Arabia.—Is about four feet high, and of a middle appearance between the general form of the Deer and Ox tribes, with the head resembling that of an Ox: The horns are about twenty inches long, very strong and black, almost close at their bases, and distant at the points; the general colour is a reddish brown, the belly, inner side of the thighs, and a space about the rump are white; with a dark coloured bed on the ridge of the back, the upper part of the fore legs, and hinder parts of the thighs; the tail is about a foot long, is terminated by a tuft of longish hairs, and resembles that of an Afs. It feeds solitarily, gallops heavily, yet with great swiftness, fights on its knees, and the flesh is reckoned rather dry. This species, according to Mr Pennant, is the animal called Hart-beest at the Cape, and Sparrmann is quoted by Dr Gmelin as describing it under the same name in the Stockholm Transactions, though the figure of the Hart-beest, in his journey to the Cape, differs very considerably in the form of the horns, which bend much backwards at their ends, from which it is more probably the next species.

693

17. Koba.—*Antilope Koba*.

The horns are thick and annulated, very close at the roots, bent out greatly in the middle, approach again, and then recede at the ends, which are smooth, sharp, and bent backwards.

Senegal Antelope. Penn. hist. of quad. n. 40. f. p. 92.—Cervus Temamaçama. Seba, mus. i. 69. t. 42. f. 4. ?—Antilope Bubalis. Pall. spic. zool. xii. 16.—Koba. Sm. Buff. vi. 405. D°. Fr. ed. xii. 210. 267. t. xxxii. f. 2.—La grand vache brünne. Adanson, voy. to Senegal. Lev. mus.

Inhabits Senegal.—This is a large species, the skin, in Mr Pennant's possession, being seven feet long; the head is large and clumsy, with large ears, seven inches long; the horns are seventeen inches long and are surrounded with fifteen prominent rings; the head and body are of a light reddish

dish brown colour, with a narrow black list down the hind part of the neck; the rump is dirty white; there is a dusky mark on each knee, and above each fetlock joint; the tail is about a foot long, and is covered with longish black hairs.

694

18. Gnou.—16. *Antelope Gnu.* 25.

The horns are thick, rough, and bent much forwards at the base, then suddenly turned backwards, hooked, smooth, and distant at the ends: The neck has a mane. Sparrmann, in act. Stock. ann. 1779, i. n. 7. t. 3. Penn. hist. of quad. n. 16.

Gnu. Sparrman. voy. ii. pl. 2.—Bos Gnou. Zimmerman. 372. Journ. histor. 53. f. p. 54. Lev. mus.

Inhabits the country of the great Namaquas to the north of the Cape of Good Hope.—Feeds in large flocks in the plains; is exceedingly fierce, very swift, and fights with its horns; it frequently drops on its knees, and runs quickly along in that posture, furrowing the ground with its horns and legs; it is a singular animal, having the body like a Horse, with a thick bull-like head, elegant taper legs like a Deer, and the lachrymal furrows of the Antelope tribe. It is about six feet and a half long, and three feet and a half high at the shoulders; of a dark rusty brown colour, the hairs being short, smooth, and tipped with white; on the breast and between the fore legs the hairs are long and black; the head is very large, thick, and clumsy, with a square mouth and broad flaps over the nostrils, having short stiff hairs on both lips; these on the under lip are intermixed with long bristles; on the lower part of the face, over the nose, is a thick oblong brush of long, stiff, black, reflected hairs, on each side of which the hairs are long, flat, and pointing downwards; on the chin and gullet is a long hanging beard, or bunch of white hairs; the neck is short, thick, somewhat arched, and has a strong, erect, ash coloured mane, which reaches from between the horns to below the shoulders; the tail is long, white, and flowing, like that of a Horse; the feet have only one spurious hoof on each. The females are provided with horns perfectly similar to those of the males, but in the young animals they are quite straight. The flesh is reckoned very good.

695

19. Pafan.—17. *Antelope Oryx.* 14.

Has straight, slender, distinctly annulated horns, which taper to a point: The body and sides are of a reddish ash colour, having a raised dusky line along the back, the hairs of which, at the posterior end, are reversed. Pall. spic. zool. xii. 16. n. 14. and p. 61. Schreber, v. t. cclvii.

Antelope recticornis, or Straight-horned Antelope. Erxleb. mam. 272. n. 3. Pall. in nov. com. Petrop. xiii. 468. t. 10. f. 5.—Antelope bezoartica, or Bezoar Antelope. Pall. misc. zool. 8. Spic. zool. i. 14.—Gazella indica, or Indian Antelope. Raj. quad. 79.—Capra gazella africana, or African Goat-antelope. Hasselqu. It. 283.—Capra gazella, or Goat Antelope. Syst. nat. ed. xii. i. 96. n. 7. Briff. quad. 67.—Oryx. Agathar. peripl. Plin. hist. nat. ii. c. 40. viii. c. 53. x. c. 73. Columell. rust. ix. c. 1. Martial. epigr. i. 13. Macrob. saturn. 3.—Pafan. Sm. Buff. vi. 408. D°. Fr. ed. xii. 212. t. 33. f. 3. Journ. histor. 56.—Egyptian Antelope. Penn. hist. of quad. n. 19. Lev. mus.

Inhabits Syria, Arabia, Persia, India, Egypt, Ethiopia, and at the Cape of Good Hope.—Is about the size of a Fallow Deer; the skin of the individual examined by Mr Pennant was above six feet six

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inches long: The horns are near three feet long, straight, slender, annulated above half their length, and the rest smooth; the points are sharp, and about fourteen inches asunder; the face is white, with a black spot at the base of the horns, another on the middle of the face, and one on each side reaching from the eye to the throat, joining that on the face by a transverse band of the same colour; the belly, rump, and legs are white; the white colour of the belly is divided, on the sides, from the reddish ash coloured upper parts, by a broad longitudinal dusky band, which reaches to the breast; each leg is marked with a dusky spot below the knee; the tail is near two feet and a half long, and is covered with longish black hairs. This species is named Gems buck, or Chamois, at the Cape, and is supposed by Dr Gmelin to be the Zebi of the sacred writers.

696

20. African Antelope.—18. *Antilope Oreotragus*. 26.

Has very straight, tapering, and sharp pointed horns, which are slightly wrinkled at the bases. Schreber, v. t. cclix.

Inhabits Africa.—The head is reddish, the upper parts of the body are greenish yellow, and the under parts of a whitish ash colour; the tail is very short.

697

21. Algazel.—19. *Antilope Gazella*. 15.

Has very long, wrinkled, slender, upright, tapering, and sharp pointed horns, which are slightly bent inwards at the ends. Pall. spic. zool. xii. 17. n. 15.

Capra bezoardica, or Bezoar Goat. Syft. nat. ed. xii. 96. n. 9.—Hircus bezoardicus. Briff. quad. 69. n. 10. Aldrov. bisulc. 756. Major, Eph. nat. cur. dec. i. a. 8. p. 1. t. 1. Mus. breisl. t. 10. f. 3. 4. Valent. mus. museor. ed. ger. i. 193. t. 36. f. 2. 4.—Animal bezoarticum. Raj. quad. 80.—Animal ignotum. Gefn. quad. 309. f. p. 38.—Gazella. Belon. obs. 120. Prosp. alp. hist. aegypt. 232. t. 14.—Bezoar Antelope. Penn. syn. n. 15.—Algazel. Penn. hist. of quad. n. 21. Buff. Fr. ed. xii. 211. t. 33. f. 1. 2. Sm. Buff. vi. 414. Br. mus. Ashm. mus. Lev. mus.

Inhabits India, Persia, even its northern parts, Egypt, and Ethiopia.—Runs swiftly up hill, but rather slowly on plain ground; it is gregarious, and very easily made tame. The general colour of the fur is red, with a white breast and belly. The real oriental Bezoar, which is of a greenish and bluish colour, and when recent has a very powerful aromatic odour, is frequently found in the fourth stomach of this species, chiefly in those of males and full grown animals, and more seldom in the stomach of females or younger individuals.

698

22. Leucoryx.—20. *Antilope Leucoryx*. 16.

Has very long, slender, upright, taper, sharp pointed horns, very slightly bent backwards, and annulated at the bases: The body is of a milk white colour. Pall. spic. zool. xii. 17. n. 16.

Gazella indica, having singular horns. Nov. com. Petrop. xiii. 470. t. 10. f. 5.—Oryx. Oppian. cynege. ii. v. 445.—Leucoryx. Penn. hist. of quad. n. 20. pl. vi.

Inhabits the island of Gow Bahrein in the bottom of the Persian Gulph near Bassora.—This species is about the size of a Welsh Runt, or small Cow; the head is large and broad, with a thick broad nose,

nose, like that of a Cow, and somewhat flouching ears; the body is thick and clumsy, and the whole is of a pure white colour, except the middle of the face, the sides of the cheeks, and the limbs, which are tinged with red; the tail is longish, and is tufted at the end with a brush of hairs; the horns are very long, slender, sharp-pointed, and of a black colour. Mr Pennant's plate is from a drawing which was done from the life, and is preserved in the British Museum. Dr Pallas mentions a horn, apparently belonging to this animal, or some nearly resembling species, being found, in a fossil state, in Siberia. The female comes into season in autumn, and brings forth in spring.

699

23. Coudous.—21. *Antilope Oreas*. 17.

Of a grey colour; having straight, tapering, sharp pointed horns, which are surrounded at the base with a spiral ridge. Pall. spic. zool. xii. 17. n. 17. Schreber, v. t. cclvi.

Antilope oryx. Pall. misc. zool. 9. Spic. zool. i. 15.—Mazame. Seb. mus. i. 69. t. 42. f. 3.—Pacasse. Church. voy. i. 623.—Coudous, or Coesdoes. Sm. Buff. vii. 40. D^o. Fr. ed. xii. 357. t. 46. 47.—African Elk. Kolben, Cape. i. 145. t. 3. f. 1.—Eland. Sparrm. in act. Stock. 1779, ii. n. 5. t. 5. fig. inf.—Elk antelope. Sparrm. voy. ii. pl. 1. f. 2.—Indian Antelope. Penn. hist. of quad. n. 22.

Inhabits India, Congo, and near the Cape of Good Hope.—Dwells mostly in the mountainous parts of the country, living in herds, but the older males are often solitary. They grow very fat, especially about the breast and heart, and are easily caught, as they cannot run with any speed, and even frequently fall down dead during the chase. This animal is thick in the body, strongly made, and is near five feet high at the shoulder; the head is reddish, with a dusky line on each cheek, and a stripe of long loose hairs on the fore-head; the body is of a bluish ash colour, sometimes white, and spotted with red and grey; it has a short black mane along the neck and ridge of the back; the tail is shortish, and is tufted with black hairs at the end; the females have horns exactly similar to those of the males, and both are made into tobacco-pipes by the Hottentots. The flesh is fine grained, very juicy, and is reckoned delicious. The lachrymal groove is wanting in this species.

700

24. Guib.—22. *Antilope scripta*. 18.

The horns are straight, tapering, sharp pointed, and directed backwards, having two spiral ridges along their whole length; the body is marked with two longitudinal white bands along the sides, which are crossed by others in a perpendicular direction. Pall. misc. zool. 8. n. 14. Spic. zool. i. 15. xii. 18. n. 18. Schreber, v. t. cclviii.

Guib. Sm. Buff. vii. 12. pl. cxviii.—Bonte bock, or Spotted Goat. Kolben, Cape. ii. 115.—Harnessed Antelope. Penn. hist. of quad. n. 23.

Inhabits Africa.—Lives in large herds in the plains and woods; the horns are about nine inches long; the ears are broad; the general colour is chestnut, with two white stripes along each side, crossed with two perpendicular stripes from the back to the belly, and two perpendicular stripes on each hip, altogether giving the appearance of harness; beneath each eye is a white spot; and there are some white spots on the thighs; the under part of the neck, a part of the cheeks, and the inner parts of the legs are white; the fore-head and ridge of the back are black. This animal is four feet and a half long, from the nose to the rump, and two feet eight inches high; the tail is ten inches long, and is covered with long hairs. It is called Oulofes, or Jalofes, by the Negroes.

701

25. Grimm.—23. *Antilope Grimmia*. 19.

Has short, slender, straight, sharp pointed horns, which are furrowed their whole length, and slightly annulated at the bases; a large lachrymal cavity under each eye, and a tuft of black hairs between the horns.

Antilope Grimmia, having straight compressed conical horns, with longitudinal wrinkles, as if much worn, and a black lachrymal cavity below each eye. Syft. nat. ed. Gmel. 191. n. 19. Pall. misc. zool. 8. 10. t. 1. 3. 4. fig. 3. a. b. Spic. zool. i. 38. t. 3. xii. 18. n. 19. Schreber, v. t. cclx. Erxleb. mam. 276. n. 7.—Moschus Grimmia. Syft. nat. ed. xii. i. 92. n. 2.—Capra Grimmia. Syft. nat. ii. 51. vi. 14. n. 10. x. 70. n. 10.—Tragulus africanus. Briff. quad. 97. n. 4.—Grimm. Misc. nat. curios. dec. ii. a. 4. p. 131. f. 13. Raj. quad. 80. Klein, quad. 19. Sm. Buff. vii. 14. pl. cxcix.—Guinea Antilope. Penn. hist. of quad. n. 24. Lev. mus.

Inhabits Guinea.—This is a very elegant animal, about eighteen inches high at the shoulder; the horns of the male are about three inches long, and the females are said to be hornless; the colour is variable, some being of a bright bay colour, while others are brown, mixed with ash colour, and tinged with yellow; the belly is white, and the tail, which is short, is white beneath, and black on the upper part: Between the horns is a small erect pointed tuft of black hairs; a black stripe runs down the middle of the face; under the chin is a small hairy wart, the ears are large, and have three longitudinal depressions on the outside; on each side, between the eyes and the nose, is a large depression, always moist, and containing a small quantity of a viscid gummy humour, which soon hardens and becomes black; the legs are ash coloured, remarkably slender and elegant, the fore legs being adorned with a black band as far as above the knees, and having only a slight excrescence instead of spurious hoofs.

702

26. Guevei.—24. *Antilope pygmaea*. 20.

Has very short, conically pointed, twisted horns, which are wrinkled at the bases. Pall. spic. zool. xii. 18. n. 20.

Hirschhe ihre Koenige, or King of the Harts. Bosman, voy. to Guin. 252.—Cervus perpusillus, f. Cervula africana. Seba, mus. i. 70. t. 43. f. 3.—Guevei-cajor. Adanson, voy. 207. Sm. Buff. vii. 27. D^o. Fr. ed. xii. 315. t. 43. f. 2.—Royal Antilope. Penn. hist. of quad. n. 25.—Petite biche. Des Marchais, i. 312.

Inhabits Senegal, Guinea, and the hottest parts of Africa.—This very elegant little animal is only about nine inches high, and yet is so exceedingly active that it is said to leap over a twelve feet wall; it is of a reddish brown colour, with jet black horns about two inches long, the females having no horns; the ears are broad, and the legs are scarcely bigger than goose-quills. It is easily made very tame and familiar, but is so extremely tender as not to bear being transported to Europe.

703

27. Wood Antelope.—25. *Antilope sylvatica*. 27.

The horns are smooth, somewhat spirally twisted, annulated at the bases, and marked with several longitudinal ribs, the ends being taper, and sharp pointed. Sparrm. in act. Stock. 1780, iii. n. 7. t. 7. Schreber, v. t. cclvii. B.

Wood Goat, or Bosh bock. Sparrm. voy. ii. pl. 2. f. 2.

Inhabits

Inhabits near the Cape of Good Hope.—This species dwells chiefly in the woods, and lives together in pairs; it is about three feet high; the upper parts of the body are brown, with a whitish forehead, two white spots on each cheek, a large white spot under the throat, and another at the bottom of the neck; the breast and hinder part of the belly are white, and there are several white spots on the thighs and flanks; the tail is exceedingly short, and a short mane runs along the neck and ridge of the back; the whole fur is longish and coarse; the horns are from ten to thirteen inches long, and of a black colour, they have several longitudinal ribs which wind once around their whole length, giving them an angular appearance, and they have a gentle spiral twist, the ends are very sharp, and recede from each other; the female has no horns.

704

28. Condoma.—26. *Antelope Strepsiceros*. 21.

Has long, compressed, wrinkled, tapering, sharp pointed spiral horns, having a ridge on one side which follows the wreaths; the body has a white line along the back, and several white stripes across from that down the sides towards the belly and thighs. Pall. spic. zool. i. 17. xii. 19. 67. Misc. zool. 9. Schreber, v. t. cclxvii.

Cervus capensis, or Cape Deer. Collin. act. ac. theod. palat. i. 437.—*Bos Strepsiceros*. Aldr. bil. 363. f. p. 369.—Animal anonymum. Houttuyn, Syst. nat. ed. belg. iii. t. 26. f. 1. 2.—*Strepsiceros*. Cail, opusc. 56. Gefn. quad. 295. 323. ic. 31. Jonst. quad. 54. t. 24.—Condoma. Sm. Buff. vii. 8. D^o. Fr. ed. xii. 301. t. 39. f. 1. 2. and xv. 142.—Striped Antelope. Penn. hist. of quad. n. 30. Forster, voy. i. 84.—Africanischer Kutu. Knor. del. ii. t. K. 5. f. 1. 4. K. 11.—Wild goat? Kolben, Cape. ii. 115. t. 6. ? Journ. hist. 42. and fig. Lev. mus. Brit. mus. Ashm. mus.

Inhabits the country near the Cape of Good Hope.—This species is near nine feet long from the nose to the rump, and four feet high at the shoulders; the body is long, slender, and of a reddish grey colour; the face is brown, having a white line from the corner of each eye, running forwards and uniting above the nose; in general the transverse stripes, mentioned in the character, are seven in number, four of which point toward the thighs, and three to the belly, but their number varies; there is a short mane on the neck, and some long hairs hang down from the throat to the breast; the breast and belly are grey; the tail, which is two feet long, is brown above, white on the under part, and black at the end. The horns are of a dusky colour, and naturally wrinkled, though such as are brought to Europe are generally highly polished; they are near four feet long, are very close at the bases, above two feet and a half distant at the points, and have two spiral screw-like turns. The female has no horns. It is said to leap with surprising activity to a vast height.

705

29. Lidmee.—27. *Antelope Cervicapra*. 22.

Has long, round, prominently annulated, tapering, and spirally twisted horns, which are smooth and sharp at the points. Pallas, misc. zool. 9. Spic. zool. i. 18. 19. t. 1. 2. xii. 19. n. 22. Schreber, v. t. cclxviii.

Antelope, having annulated spiral horns, the body being of a brown colour above and white on the under parts. Erxl. mam. 283. n. 14.—Lidmee, or Indian Antelope. Sm. Buff. vi. 412. 413. D^o. Fr. ed. xii. 215. 217. t. 35. 36. f. 1. 2.—Common Antelope, and Brown Antelope. Penn. hist. of quad. n. 31. and n. 31. a. pl. viii.—*Gazella africana*, f. Antelope. Charlet. exerc. 67. Raj. quad.

quad. 79. n. 4. Grew, mus. 24.—*Capra cervicapra*. Syst. nat. ed. ii. 50. vi. 14. n. 7. x. 69. n. 8. xii. 96. n. 8.—*Capra bezoartica*. Aldrov. bif. 256. Olear. mus. 13. t. 9. f. 7.—*Tragus strepsiceros*. Klein, quad. 18.—*Hircus gazella*. Briff. quad. 68. n. 8.—*Gazella*. Jonst. quad. t. 29. Act. Parif. i. 84. Valent. amph. zoot. 105. t. 19. Scheuchz. bibl. sac. iv. t. 576.—*Strepsiceros*, et *Adax*. Plin. hist. nat. xi. c. 37.—*Lidmee arabum*. Shaw, trav. 243. Br. mus. Afhm. mus. Lev. mus.

Inhabits Barbary and India.—This species is somewhat smaller than a Fallow Deer, and is of a brown colour, clouded with reddish and dusky; the belly, breast, and inside of the thighs are white; the circumference of the orbits is white; the horns are erect, about sixteen inches long, of a black colour, and almost entirely covered with prominent rings, the points only being smooth, and are above twelve inches distant. The female has no horns, and, after going nine months with young, brings generally twins. Mr Pennant makes a distinction between the Lidmee of Barbary and that found in India, though the only difference seems to consist in the greater size of the former, the latter being rather smaller than a Roe; he likewise mentions horns frequently sent from India, which have been used as daggers, which seem to belong to this species, but have all their rings polished off.

XXXVIII. GOAT.—37. *CAPRA*. 30.

Has rough, compressed, hollow, and persistent horns; which are erected from the top of the head, and bend backwards. Has no tusks; eight cutting teeth in the lower jaw, and none in the upper. The chin is furnished with a beard.

The animals of this genus are fond of dry elevated situations, on rocky hills, and feed much on aromatic vegetables; they differ from Sheep chiefly in the erected situation of their horns, in being covered with hair instead of wool, and in a rank disagreeable odour, especially the males, which, from them, has acquired the name of hircine, even when exhaled from other animals, and even from some vegetables. In their natural state they are exceedingly shy and timid, but are easily tamed, and become very familiar: The males fight much in rutting time, and differ in this from Sheep or Rams, as the latter run full tilt at each other with their heads held down, whereas the Goat rises almost erect on his hind legs, and turns his head on one side to strike his antagonist with his horns. Some naturalists suppose the first of the following species to have been the original stock of all our Goats; but that opinion seems chiefly founded on theory. I have not however taken any liberties with the arrangement given by Dr Gmelin, as the descriptions are so distinct that no difficulty of discriminating the several kinds, whether they be ultimately considered as species or variety, can possibly occur to the reader. There were no animals of this genus originally in America; but they are now very plentiful in many parts, and of various breeds.

I. Wild Goat.—I. *Capra Aegagrus*. 1.

Has large, smooth, black horns, which are sharply ridged on their upper, and hollowed on their under surfaces, and much arched backwards; the chin is furnished with a beard. Pallas, sp. zool. xi. 45. t. 5. f. 2. 3. S. G. Gmel. it. iii. 493.

Cervicapra,

Cervicapra, or Paesen. Kaempf. amoen. exot. 398. t. 4. n. 1.—Stein bock. Ridinger, jagd. th. t. 11.—Chevre sauvage. Tavernier, It. ii. 143. Monad. de lap. bezoar. 8.—Caucasian Goat. Penn. hist. of quad. n. 14. Zimmerman. 662. Lev. mus.

Inhabits the lower mountains of Caucasus and Taurus, Asia Minor, Laar and Khorazan in Persia, probably in India and Africa.—The horns of this animal have no knobs or rings, but on the upper surface are a few wavy wrinkles; they are very large, sometimes weigh ten pounds, and measure three feet long; they are very close at the base, bend much backward, and are even hooked at the ends, which approach a little. The general colour of the animal is grey, sometimes mixed with rust colour having a dusky list along the middle of the back; the fore part of the head is black, the cheeks are mixed with brown, and the chin has a large beard of a dusky colour, mixed with chestnut; the tail is black. In size, it is superior to the largest domestic Goat, and resembles the Stag in agility and elegance of form. The female has no horns, or very short ones. Some authors say that, when hard pressed by the hunters, it will throw itself from a precipice, and save itself by falling on the horns.

2. Common Goat.—2. *Capra Hircus*. 1. β .

The horns are ridged, and much arched backwards, with a curvature outwards at the ends; and have a beard on the chin. Syst. nat. ed. xii. 94. n. 1. Faun. Suec. 44. Forster, in Phil. Transf. lvii. 344.

Hircus, having arched horns, which are sharp edged on the inside, rounded outwardly, and ridged below. Briss. regn. an. 62. n. 1.—Tragus domesticus. Klein, quad. 15.—Capra domestica. Sloan, jam. ii. 328.—Hircus domesticus. Charlet. exerc. 9.—Caper hispanicus. Jonst. quad. t. 26.—Capra, Hircus, or Hoedus. Plin. hist. nat. viii. c. 50. Gefn. quad. 270. 301. f. p. 302. 314. Aldrov. bif. 619. f. p. 635. Jonst. quad. 65. t. 26. 27. Sibb. Scot. an. 8. Raj. quad. 77. Rzacz. Pol. 239. Schwenkf. ther. 97. 98. 100. 101.—*Ταγρος, Αργες*. Arist. hist. an. v. c. ii. vi. c. 15. viii. c. 13. ix. c. 4. Oppian. cyneg. ii. 326.—Bouc, et Chevre, or He, and She Goat. Sm. Buff. iii. 486. pl. xvi. xvii.—Geyfs, and Bock. Gefn. thierb. 127. f. p. 128. 135.—Siegen bock, Siege. Klein, quad. 15.—Domestic Goat. Penn. hist. of quad. n. 14. α . BRIT. ZOOL. i. 29.

Inhabits most part of the world.—The chief distinction between this and the Wild Goat is, that, in the former, the horns rather approach at the points, whereas, in the Common or domestic Goat, the upper half of the horns bend much outwards; the latter is likewise a good deal smaller. The colour of the Domestic Goat is subject to great variety, and the length of the hair varies, being smooth and short in hot countries, while in the colder regions it is long and shaggy.

3. Angora Goat.—3. *Capra angorensis*. 1. γ .

The whole body is covered with very long, soft, silky, hair. Briss. reg. an. 64. n. 2.

Αἴζ, εν λυκία. Aelian. an. xvi. c. 30.—Capra angorensis. Haffelquist, It. 206. Olear. mus. t. 10. f. 2. Forster, in Phil. Transf. lvii. 344.—Chevre d'Angora. Tournef. It. ii. 185. Sm. Buff. iii. 498. pl. xviii. xix.—Angora Goat. Penn. hist. of quad. n. 14. β . Nieuhoff, in Church. voy. ii. 232. Strabo, xii. 823. Zimmerman. 134. Lev. mus.

Inhabits the country about Angora, Beibazar, and Cougna in Asiatic Turkey, and about Gomron in Persia.—Those of Angora are of a silvery whiteness, while those about Cougna are brown or black

coloured. The horns of the He-goat stand outwards directly from the head, and are twisted into a screw-like spiral, being sometimes above two feet long, and near three feet distant at the ends; while the horns of the female are short, and bend first back, then down, and then forwards, almost close to the sides of the head. The ears are flat, pointed, and flouching.

709

4. Syrian Goat.—4. *Capra mambrica*. 1. ♂.

The horns are short and much reclined backwards; the ears are very long and pendulous; the throat is bearded. Syft. nat. ed. xii. 95. n. 3.

Capra fyriaca. Briff. quad. 72. n. 13.—*Capra indica*, and *Capra mambrina*, or rather *Syriaca*. Gefn. quad. 1097. 1098.—Goat, with long hanging ears. Prosp. Alp. i. 229. Aldrov. bif. 769. f. p. 768.—*Capra mambrina indica*, et *C. mambrina fyriaca*. Jonst. quad. 81. t. 26.—*Capra mambrina*, or *C. fyriaca*. Raj. quad. 81.—Geyssen, with hanging ears. Rauwolf. It. iii. 26.—*Mambrina*, or *Syrian Goat*. Sm. Buff. vi. 378.—*Syrian Goat*. Penn. hist. of quad. n. 14. γ. pl. v. Ruffel, Alep. 52. Zimmerman. 135. Nieuhoff, in Church. coll. ii. 232. fig. p. 231.

Inhabits Syria, India, Persia, and other parts of the east; is likewise brought sometimes to Astracan by the Kirghisian Tartars.—The horns of this Goat are short, black, and transversely wrinkled; those of the male bend much backwards, and are divaricated and bent upwards at the ends; those of the female take a half turn, pointing forwards, close to the head: The ears are of an enormous length, and sometimes need to be cut off, to allow the animal to graze. This animal is somewhat larger than the Common Goat.

710

5. African Goat.—5. *Capra depressa*. 1. ♀.

The horns are short, thick, triangular, and laid close to the skull. Syft. nat. ed. xii. 95. n. 5.

Hircus, with depressed horns, or *Capra parva*, from America. Briff. quad. 65. n. 4.—*African Goat*, and *Dwarf Goat*. Sm. Buff. vi. 379. 380. 381. pl. clxxxix. cxc.—*African Goat*. Penn. hist. of quad. n. 14. δ. Lev. mus.

Inhabits Africa.—This is a dwarfish animal, not much larger than a half grown kid of the common kind; the male has two long hairy wattles below the chin; these are wanting on the female, which has much smaller horns: The hair of the male is rough and pendulous, that of the female is smooth and short.

711

6. Whidaw Goat.—6. *Capra reversa*. 1. ζ.

The horns are short, erect, smooth, and turned forwards at the ends. Syft. nat. ed. xii. 95. n. 6.

Ibex parvus, from America. Briff. quad. 65. n. 5.—*Buck of Juda*. Sm. Buff. v. 378. pl. xcii. xciii.—*Whidaw Goat*. Penn. hist. of quad. n. 14. ε.

Inhabits Whidaw, or Juda, in Africa.—This species is dwarfish, being about the size of a year old Kid of the common kind, and differs from the former chiefly in the form of the horns, and by wanting the wattles on the throat.

712

7. Juda Goat.—*Capra nana*.

The horns are very thick, are rounded on the upper surface, and have two sharp edges below; they are bent backwards, with a slight spiral twist downwards, outwards, and upwards.

Other Buck of Juda. Sm. Buff. v. 390. pl. cxiii.

Inhabits Juda in Africa.—This kind is likewise of a dwarfish size, and, though joined with the preceding by Dr Gmelin, is here separated on account of the different figure of the horns.

713

8. Capricorn.—7. *Capra Capricornus*. 1. n.

The horns are short, annulated at the sides, and turned forwards at the ends. Sm. Buff. vi. 363. D°. Fr. ed. xii. 146. t. 15.

Capricorn Goat. Penn. hist. of quad. n. 14. 7.

Its place, history, and even figure, are uncertain.—The Count de Buffon only informs us that its skeleton was sent, under the name of Capricorne, to the royal cabinet, and that it agrees with the Common Goat in the form and proportions of its bones and teeth, but differs in the figure of the horns.

714

9. Cabonas Goat.—*Capra mutica*.

Has no horns. Penn. hist. of quad. p. 57.

Inhabits the country of the Cabonas, to the north of the Cape of Good Hope.—This variety resembles the Common domestic Goat in every thing but the want of horns.

Goats * are found wild in many places, but principally on the mountains of Caucasus and Taurus; likewise on the hills of Persia, India, and Japan, also in Crete or Candia, and Africa, and the lower Alpine mountains of Europe. They resemble Deer in agility, and even in manners and appearance, but are much more subject to variety. The horns of the male, which are generally of a dark brown ash colour, are always larger, stronger, and rougher than those of the females, which are either small and slender, or wanting. The neck and limbs are strongly made; the head is thick, and the skull very hard; they have no lachrymal furrow below the eyes, nor any cellular cavity in the groins. The fur, in the wild state, is usually of a reddish grey or ash colour †, with a dusky list along the ridge of the back; the fur is generally harsh and rough; and the formerly esteemed Bezoar is frequently found in their stomachs. The Domestic species, Sp. 2. is cultivated through all Europe, and in almost every part of the earth; it feeds on the twigs, leaves, and bark of various trees and shrubs, and on various kinds of mosses and lichens, and even eats hemlock, euphorbium, and other poisonous and medicinal plants without harm: It is fond of hilly places; generally lives to ten or twelve years of age; varies in colour, being black, or white, or mottled; and is seldom destitute of horns than the other domestic quadrupeds. In the island of Juan Fernandez there are Goats, now wild, descended from tame ones left there by navigators; but there were none in America, till carried thither from Europe or Africa. The Goat is treacherous, petulant, quarrelsome, lascivious, very active, and an ex-

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cellent

* This paragraph relates to all the species or varieties which have gone before.—T.

† This refers to the Wild Goat, No. 706.—T.

cellent leaper; the She-goat goes five months with young, and brings generally one, sometimes two, and very rarely three or four, at a birth; the male has a strong rank odour; they are very destructive to the bark of trees; their hide is very tough, and makes excellent leather for several purposes; their hair, though vastly coarser than the wool of sheep, is useful; and their milk, and the cheese made from it, are much esteemed.

715

10. Ibex.—8. *Capra Ibex*. 2.

Has large horns, knobbed on their upper surfaces, and reclined backwards; the throat is bearded. Briff. reg. an. 64. n. 3. Erxleb. mam. 261. n. 2.

Capra alpina, with very long, almost triangular, horns, which are knobbed on their upper surfaces, and much bent backwards. Girtanner, in the Lichtenberg magazine, iv. 2. p. 30.—*Ibex alpinum fibricarum*. Pall. sp. zool. xi. 31. t. 3. and 5. f. 4.—*Ibex*. Plin. hist. nat. viii. c. 53. Gefn. quad. 331. 1099. Aldrov. bif. 730. f. p. 732. Jonst. quad. 75. t. 25. 28. Charlet. exerc. 10. Wagn. helvet. 176. Raj. quad. 77. Klein, quad. 16.—*Hircus ferus*. Belon, obs. 20.—*Bouc sauvage*. Gafton de foix. 99.—*Capricorne*. Munster, cosmogr. 381.—*Bouquetin*, *Bouc estain*, *Boucstein*, *Rock goat*, or *Wild goat*. Sm. Buff. vi. 363. pl. clxxxvii. Zimmerman. 114.—*Stein bock*. Gefn. thierb. 148. Knorr, delic. ii. t. k. 5. f. 2. Kram. austr. 321. Ridinger, klein. thier. n. 71.—*Ibex*. Penn. hist. of quad. n. 13. Br. mus. Ashm. mus. Lev. mus.

Inhabits the Kamtschatkan, Siberian, Arabian, Cretan, Italian, Apennine, German, Swiss, and Tirol Alps, chiefly in the most precipitous and inaccessible places.—This animal is exceedingly active, very swift, and leaps with astonishing agility and dexterity in the most dangerous rocky places of the mountains; it is larger than the Wild Goat, having a short, thick, and strong body, with strong yet handsome legs, and very short hoofs: the head is short, with a thick compressed muzzle; the horns of the male are very large, of a blackish grey or ash colour, sometimes three feet long, and weighing from eight to ten pounds; they are rounded on the under surface, much knobbed on the upper surface, furnished with projecting longitudinal ridges, and considerably more arched than those of the Wild Goat; the horns of the female have fewer knobs, are smaller than those of the male; and resemble the horns of the Common She-goat; the male is furnished with a dusky beard; the general colour of the hair, which is long, is a deep brown, mixed with some hoary, with a blackish list along the back; the belly is of a tawny white colour; the knees are white, with a large black spot above, and another below each; the tail is short, black on its upper surface and at the point, and naked underneath: In young animals the fur is of a dirty grey colour; and the females are a good deal smaller than the males. The Ibex lives much among the snows and glaciers of the highest mountains, is exceedingly wild and difficultly shot, the chase being very hazardous on account of the nature of their retreats, and being very strong, they frequently tumble the huntsman over the precipices. In the severest weather of winter they sometimes descend a little way in quest of food. During the rutting season the males bray very loud; the females retire to the side of some small stream to bring forth, and have one, or at most two, at a birth. The Ibex is named *Tau-tokke*, or *Mountain Goat*, by the Tartars; the flesh is much esteemed, and the skin is very thin. Dr Gmelin is uncertain whether the Ibex found in Siberia be the same, or a distinct species.

716

11. Caucasian Goat.—9. *Capra caucasica*. 3.

The horns are slightly triangular, and knobbed on their anterior surface, and are arched

ed backwards, considerably divaricating, with their extremities turned inwards. Guldenstedt, act. Petrop. 1779, ii. 273. t. xvi. xvii.

Inhabits the bare, schistic, rocky, summits of mount Caucasus, near the origin of the Terek and Cuban rivers, and in the districts named Cacketia and Offetino.—The horns of the male are of a dirty blackish colour, and much longer than those of the Common Goat; those of the females are of a brownish ash colour, and much smaller: The upper parts of the body are of a bright brownish grey colour, with a narrow dark brown list along the back, the under parts are whitish, and the limbs are black; the hair is harsh, somewhat stiff, ash coloured at the roots, and is intermixed with an ash coloured wool. This animal is about the size of the Common Goat, with which, however, it will not breed, and is rather shorter and broader in its general form.

XXXIX. SHEEP.—38. *OVIS*. 31.

Has hollow, wrinkled, persistent horns, which are turned backwards and outwards into a circular or spiral form generally at the sides of the head. The lower jaw has eight cutting teeth; the upper jaw none; and no tusks in either.

This is perhaps the most useful of all quadrupeds to mankind, in a civilized state, as it supplies excellent food and warm clothing, and its wool, in some countries, is an astonishing source of industry and wealth. Sheep are naturally harmless and timid, and are greatly less active, either in running or leaping, than Goats; they prefer dry open plains, and grassy or heathy hills, but avoid rocky places, and do not agree with forests or wet soils; they fight by butting against each other with their horns, and threaten by stamping on the ground with their feet; they drink little, are subject to a disease named the *rot*, to worms in the liver, and to vertigo: The female goes about five months with young, and brings commonly one, often two when in good pasture, and sometimes, though rarely, three young ones at a birth. The male is named Ram or Tup, when castrated Wedder, the female Ewe, the young ones Lamb; and many other names are employed by the shepherds for distinguishing particular ages, as Hogs, Dinmonds, Gimmers, &c. which vary in different districts.

1. Common Sheep.—1. *Ovis Aries*. 1.

Has the horns twisted outwards into a compressed spiral or screw. Faun. Succ. 45. Amoen. ac. iv. 169.

Aries laniger. Briff. regn. an. 74. n. 1.—*Ovis domestica*. Sloan, jam. ii. 328. Raj. quad. 73.—Common Sheep. Penn. hist. of quad. n. 11. A.—Προβατον. Arift. hist. an. v. c. 11. vi. c. 19. viii. c. 13. ix. c. 4. Aelian. an. vii. c. 27.—*Pecus*, *Aries*, *Ovis*, *Vervex*, *Agnus*. Plin. hist. nat. viii. c. 47. 48. Gefn. quad. 872. 912. 925. 927. Aldrov. bifulc. 370. Jonst. quad. 54. t. 22. Charlet. exerc. 8. Sibbald, Scot. an. 8. Rzaczinsk. polon. 242. Swenkf. ther. 56. 60.—Schaaf, Wedder, Hammel, Lamb. Gefn. thierb. 320. 321. 327. 329. Zimmerman. 112.

Sheep are cultivated all over the world, for the sake of their flesh, milk, and cheese, as food, and for their wool, of which a warm clothing is manufactured; it is perhaps the most stupid, weakest, and

and most helpless of all quadrupeds; it delights most in dry places which are exposed to the sun, and is fond of salt, or of plants which grow in salt marshes; its voice is named bleating: It chiefly feeds on the grass named *Festuca ovina*, and the *Burfa pastoris*, or Shepherd's purse, and drinks little; it is injured by eating the *Pruna spinosa*, *Equisetum*, *Ranunculus*, *Flammula*, *Anthericum officragum*, *Kalmia*, *Myosotis palustris*, and *Anemone nemorosa*; it is infested by the *Hippobosca ovina*, *Pediculus ovis*, *Oestrus ovis*, *Acarus ricinus*, and *Fasciola hepatica*; it is likewise subject to a vertigo, occasioned by hydatids in the brain, to disorders of the liver, consumption, jaundice, dropsy, scab, and a kind of small-pox. Sheep attain their full size in two years, and seldom reach fourteen years of age; they change their teeth with age; are very fearful, and, when threatened, stamp on the ground with their hoofs, voiding their urine at the same time, and defend themselves by butting with their horns: One Ram is sufficient for forty or fifty Ewes; the females go twenty three weeks with young, and bring one or two Lambs, seldom three, at a birth.

Of this species, the following varieties are distinctly marked in authors, besides many, almost endless, cultivated varieties, which differ from each other by such insensible gradations as to baffle all attempts at scientific description.

717 α . Hornless Sheep.—1. α . *O. Aries anglica*.

Has no horns; the tail and scrotum hang down as low as the second joint of the hind legs, and the wool is fine.

Ovis Anglicana. Amoen. ac. iv. 174.—Hornless Sheep. Penn. hist. of quad. n. 11. C. Sm. Buff. iii. 472. note.

This kind is common in most parts of Britain; those of Lincolnshire are the largest, and very small breeds are found in Wales and in Shetland; the White-faced and Fine-wooled Sheep of this island have generally either no horns or very small ones. The length of tail mentioned in the character is by no means universal, as a great many of our hornless breeds have very short tails.

718 β . Dwarf Sheep.—*O. Aries nana*.

Has no horns, is of a very small size, and has a turned up nose.

Dunky, or Dwarf Sheep. Bewick, hist. of quad. 60. and fig.

This variety is found in Lincolnshire; but the individual engraven by Mr Bewick came from some foreign place, we are not told whence; the wool forms a kind of ruff round its face, the under jaw is much protruded, leaving the fore-teeth exposed, the nose is much crooked upwards, the fore-head is very high and projecting, and the ears are small and erect; perhaps it may only be an accidental variety.

719 γ . Rustic Sheep.—1. β . *O. Aries rustica*.

Is horned; the tail is short, and the wool is short and rather coarse.

Ovis rustica. Amoen. ac. iv. 174. Pall. sp. zool. xi. 61.—*Ovis brachyura*. Pall. sp. zool. xi. 59.—Black-faced Sheep. Bewick, quad. 52. and fig.

This is the most common breed of Sheep all over Europe, especially in the northern parts; the wool is shorter, coarser, and less curled than on the Hornless breed; the horns are generally large, wrinkled,

wrinkled, turned backwards into a compressed, spiral, screw-like twist, which comes down to the sides of the head, taking several turns, and becoming large on old Rams; they are angular, having longitudinal ridges, and the ends are smoothed, and turned outwards; sometimes they are wanting, and the females have always much smaller and less twisted horns than the males; the eyes are usually bluish, and have a considerable wildness, with an oblong pupil, and having a deep gutter before the inner canthus or corner, into which a glutinous matter is secreted; the tail is mostly round, and shorter than in the former variety; the colour of the fleece is mostly white, sometimes black, dark brown, or spotted, and the face is almost always covered with short hair of a black, dark brown, or grey colour. The mutton of this kind is much esteemed, but the wool is comparatively of little value, serving only for coarse manufactures; they are very agile, and exceedingly shy. This breed is found in greatest perfection on the hills of Tweeddale in Scotland.

720

δ. Spanish Sheep.—1. γ. *O. Aries hispanica*.

The horns are twisted into a spiral which is lengthened outwards; the wool is very fine and plentiful.

Ovis hispanica. Amoen. ac. iv. 174.

This is the common sheep of Spain, so famous for the fineness of the wool, that even the British woollen manufactures require a very considerable annual supply, to mix with home wool, for the finest broad cloths, and other fine fabrics.

721

ε. Many-horned Sheep.—1. δ. *O. Aries polycerata*.

Has more than two horns. Amoen. ac. iv. 174.

Ovis gotlandica. Pall. sp. zool. xi. t. 4. f. 1. c. f. 2. b. t. 3. f. 5.—*Ovis seicornis*, et *Ovis tricornis*. Aldrov. bifulc. 397.—Iceland Sheep. Sm. Buff. iii. 484. vi. t. clxx. clxxi. Penn. hist. of quad. n. 11. D. pl. 3. f. 3.—Many horned Sheep. D°. n. 11. E. t. 3. f. 2. Zimmerman. 127. 128. Grew, rar. t. 2. Lev. mus. Weir's mus.

The many-horned sheep are common in Iceland, and other parts of the north, in Siberia, and among the Tartars near the river Jenisei, and other parts of Tartary.—These can hardly be said to form a distinct variety, for in the same flocks, in which individual rams with three, four, five, or even six horns are found, others have only the usual pair; in general one, when there are three, or two horns, when there are four or more, stand erect, and the outer horns have the common semilunar or spiral turn: On one of the varieties of this kind, engraved in Mr Pennant's History of Quadrupeds, the lower part and sides of the neck were covered with long straight yellowish hairs, fourteen inches in length: This animal was brought from Spain, was very mischievous, and fond of butting; but its country is uncertain.

722

ζ. African Sheep.—1. ε. *O. Aries africana*.

Is clothed with short hair instead of wool.

Ovis africana. Amoen. ac. iv. 173. Raj. quad. 75. Sloan, jam. ii. 328.—*Aries pilosus*. Briff. regn. an. 76. n. 4.—*Ovis aethiopica*. Charlet. exerc. 9.

Inhabits Africa.

723

n. Wattled Sheep.—1. ζ. *O. Aries guineensis*.

Has hairy wattles on the throat, pendant ears, and a prominence on the back part of the head. Syft. nat. ed. xii. 98. n. 2.

Ovis guineensis. Briff. regn. an. 77. n. 5.—*Aries guineensis*, f. *angolenfis*. Marcgr. Braf. 234. Jonst. quad. t. 46. Klein, quad. 14. Raj. quad. 75. Sloan. jam. 328.—Adim-mayan. Marmol, afr. i. 59. Leo Afr. 341.—Moutons de guinee. Adanf. Seneg. 37. Des March. It. i. 129.—African, Indian, Senegal, Guinea, or Angola Sheep. Sm. Buff. vi. 212. pl. clxxiii. clxxiv. clxxv.—Sahara Sheep. Shaw, It. 241.—Carnero, or Bell-wedder. Della Valle, trav. 91.—African Sheep. Penn. hist. of quad. n. 11. F. Zimmerman. 131.

This breed is found in many of the warm parts of the earth, as in Guinea, the great African desert of Sahara, or Zara, and other parts of Africa, in India, and has been transported into South America.—It is very tall, long legged, and meagre, with short horns turned backwards and downwards close to the side of the head, pendant ears, long small tails, wattles on the neck, long arched muzzles, and is covered with hair instead of wool; is sometimes found as tall as a middle sized Afs. The flesh is reckoned very bad.

724

θ. Broad-tailed Sheep.—1. η. *O. Aries laticaudata*.

Has long, and very broad tails. Penn. hist. of quad. n. 11. G. Arift. hist. an. viii. c. 28.

Tunis Sheep. Sm. Buff. vi. pl. clxxvi.—Barbary Wedder. D^o. pl. clxxii.

This kind is common in Syria, Barbary, and Ethiopia, in Thibet, and among the Tartars.—The tails are often so long as to trail on the ground, and to require a piece of board, with wheels, to keep them from galling; they are sometimes pointed at the end, but mostly square or rounded, and are reckoned a great delicacy, being composed of a substance between fat and marrow, and sometimes weigh fifty pounds. Those of Thibet produce the very fine wool of which shawls are manufactured; but their tails, though broad, are not nearly so long as the others.

725

ι. Fat-rumped Sheep.—*O. Aries steatopyga*.

Has two large, naked, hemispherical prominences on the buttocks, and no tail; with pendant ears. Penn. hist. of quad. n. 11. H. pl. iv. f. 1.

Ovis steatopyga, *Aries kirgificus*. Pall. sp. zool. 63. t. 4. f. 1. 2. a. b.

This singular breed is common among the Tartars from the Volga to the Irtysh, and to the Altaic mountains.—They have curled horns like the Common Sheep, pendulous ears, arched noses, and wattles on the neck; the wool is long and coarse; the head black, and the ears white and edged with black; they grow to a large size, sometimes weighing two hundred pounds; are usually white, but sometimes black, reddish, or spotted; the great prominences on the buttocks are entirely composed of fat.

These two kinds of sheep, the Broad-tailed, and Flat-rumped varieties, are not distinguished by Dr Gmelin, in his edition of the *Systema Naturae*, though they are evidently as widely different at least as some of the other varieties. He says, that, in general, they are white, sometimes black, brown, or spotted, and very seldom grey, or hoary; and that they are cultivated among the various wandering

wandering hordes of Tartars, particularly among the Kirgishians, and are likewise found over the whole East, in Persia, China, Syria, Arabia, and Egypt; he adds, that instead of a tail, of which only the coccyx is to be found, they are furnished with a large and thick bundle of fat, which sometimes exceeds thirty pounds in weight. He quotes the following authors and synonyms, without any distinction, of which all seem to refer to the broad-tailed variety except Pallas, who evidently means by *Ovis steatopyga*, the Fat-rumped Sheep with hardly any tail, the fat being placed in two large bunches on the buttocks, while in the Broad-tailed Sheep the vast mass of fat is confined to the tail itself.—T.

Ovis platyura arabica. Ruffel, Alep. 51. t. 52.—*Ovis αραβιος*. Aelian, an. x. c. 4.—*Ovis arabiae*. Aldrov. bif. 404. f. p. 405.—*Ovis turcica*. Charlet. exerc. 9.—*Ovis cauda obesa*. Ludolf. aeth. i. c. 10. n. 14.—*Ovis laticauda*. Raj. quad. 74. J. G. Gmelin, nov. com. Petrop. v. 343. t. 8. Briss. regn. an. 75. n. 2.—*Aries*, f. *Ovis παρασκευας orientalis*. Klein, quad. 74.—*Ovis laticauda*, *platyceros*, f. *arabica*. Amoen. ac. iv. 173.—Broad-tailed Sheep. Shaw, It. 241.—Arabisches schaaf. Gefn. thierb. 326.—Hiesige schaaf. Ofb. ostind. 188.—Schaaf deren Schwaentz gar feist. Ra-wolf. It. iii. 26.—Broad-tailed Sheep. Penn. hist. of quad. n. 11. G.—Fat-rumped Sheep. Dr. n. 11. H.—*Ovis steatopyga*, *Aries kirgificus*. Pall. spic. zool. xi. 63. t. 4. f. 1. 2. a. b.

726

κ. Bucharian Sheep.—1. θ. *O. Aries bucharica*.

Has large pendulous ears, and a long, flat, broad tail, with small fatty bunches on the hips. Pall. sp. zool. xi. 78.

This kind is common among the flocks of the Bucharian Tartars, and is found in Persia, Syria, Palestine, and several parts of Africa.—In Dr Gmelin's opinion, it is produced from an intermixture of the Broad-tailed with the Long-tailed varieties: The tail is oblong, flattened, fat, covered with wool, naked beneath, and ends in a point; the fleece is exceedingly fine, and is of different colours, as pure white, black, hoary or grey, and of a silvery whiteness. Mr Pennant probably means this kind, when, speaking of the Broad-tailed Sheep, he says, that some have pointed tails.

727

λ. Long-tailed Sheep.—1. ι. *O. Aries longicauda*.

Has a very long tail, and is clothed with wool. Briss. regn. an. 76. n. 3.

Ovis dolichura, f. *ovis tscherkessica*. Pall. sp. zool. xi. 60.—*Ovis alterum genus*. Raj. quad. 74.—*Ovis arabica*. Jonst. quad. t. 23.—Schaaffe. Olear. It. 567.—Ein ander arabische schaaff. Gefn. thierb. 326.

Of this kind Dr Gmelin gives no account, farther than what is contained in the character.

728

μ. Cape Sheep.—1. κ. *O. Aries capensis*.

Has large pendulous ears, and a large broad tail. Penn. hist. of quad. pl. iv. f. 2.

Neither Mr Pennant, who gives an engraving of this kind, nor Dr Gmelin, who quotes it from him, give any account of this animal, which is not even contained in the text of Mr Pennant's excellent work. By the figure, the head is long, and the muzzle thick and a little arched; the horns are short, and bent back close behind the ears, which are long, broad, and naked; the body and neck

are covered with long flowing hair, or wool not curled; the legs are black and naked; and the tail is so enveloped in the long coat as not to be apparent.

729

v. Bearded Sheep.—*O. Aries barbata*.

Has a long divided beard hanging down from the lower part of the cheeks and upper jaw. Penn. hist. of quad. n. 12.

Siberian Goat. Penn. synopf. of quad. n. 11.—*Tragelaphus*, or *Hirco-cervus*. Caii, opusc. 59.—*Tragelaphus*. Plin. viii. c. 33.

Inhabits, probably, Barbary and Mauritania.—The skin, from which Mr Pennant drew up his description of this animal, was purchased in Holland, and was said to have come from the East Indies. The horns were very thick and close at the bases, bending backwards, diverging and turned outwards, about two feet long, eleven inches circumference at the base, and nineteen inches distant at the tips: The general colour was a pale rusty brown; the upper part of the neck had a kind of erected mane; the under part of the neck and shoulders were covered with long coarse flowing hairs, about fourteen inches long; the hair on the rest of the body was short, and intermixed at their roots with a short fleece of wool. Dr Gmelin quotes this as a synonyme of the *Capra Ammon*, which has no beard on the cheeks.

730

ξ. Morvant.—*O. Aries jubata*.

Has a short mane on the neck, and a long beard on the fore part of the breast. Sm. Buff. vi. 227. pl. clxxvii.

This animal was exhibited at Paris under the name of Chinese Morvant. The horns have only a half turn in the same direction with those of the Common Sheep; the beard on the lower part of the neck is coarse, about ten inches long, and of a mixed red and grey colour; the mane extends to the middle of the back, and is of the same colour with the beard, but mixed with red and black hairs; and the two are joined all round the neck and shoulders with longish red grey hairs; the rest of the body is covered with wool, of a bright yellow colour, a little curled and soft at the ends, but straight and coarse at the roots; the legs are deep red; the tail is yellow and white, and is furnished with long coarse hairs like that of a cow.

731

2. Cretan Sheep.—3. *Ovis Strepsiceros*. 3.

Has long, erect, spirally screwed horns, furnished with longitudinal ridges.

Hircus laniger, or *Capra cretensis*. Briff. regn. an. 73. n. 15.—*Ovis ξανδός*. Oppian, cyneg. ii. 376.—*Strepsiceros*. Plin. hist. nat. xi. c. 37. Sm. Buff. vi. 211.—*Aries cretensis*, f. *Strepsiceros*. Belon. obs. 20. f. p. 21. Aldrov. bifalc. 406. f. p. 407. Raj. quad. 75. Jonst. quad. t. 45. Besch. der berl. naturf. iv. 624. t. 20. Klein, quad. 14.—Wilde Straubengeyfs. Gefn. thierb. 151. f. p. 152.—Wallachian Sheep. Sm. Buff. iii. 284. pl. xv. 2d. xv. 3d.—Cretan Sheep. Penn. hist. of quad. n. 11. B. pl. iii. f. 1. Zimmerman. 131.

Inhabits Candia, and the other Grecian islands, and is common in Hungary and Austria.—The horns of the male are twisted quite erect into a spiral like the worm of a screw; those of the female have the screw drawn out so as to resemble rather a loosely twisted rope, and the ends diverge considerably;

considerably; in both the wool is long, pendant, and hairy. Dr Gmelin expresses a doubt whether this may not be the common stock of all the varieties of Sheep. This is almost the only kind of Sheep brought to market in Austria, where it is named Zackl.

3. Argali.—2. *Ovis Ammon*. 2.

The horns are large, semicircularly arched backwards and divergent, wrinkled on their upper surface, and flattish on the under side; and the neck has two pendant hairy wattles. Erxleb. mam. 250. n. 2.

Capra Ammon. Syst. nat. ed. xii. 97. n. 12.—Hircus, f. Capra orientalis. Briff. regn. an. 71. n. 12.—Musmon, et Ophion. Plin. hist. nat. viii. c. 49. xxviii. c. 9. xxx. c. 15.—Musmon, f. Musimon. Gefn. quad. 934. Zimmerman. 114. 546.—Musimon, et Tragelaphus Belonii. Raj. quad. 75. 82.—Tragelaphus, f. Muslon. Klein, quad. 20.—Rupicapra cornibus arietinis. J. G. Gmelin, nov. com. Petrop. iv. 388. et summ. 53. t. 8. b. f. 2. 3.—Ovis fera sibirica, f. Argali vulgo dicta. Pall. sp. zool. xi. 3. t. 1. 2.—Mouflon. Sm. Buff. vi. 205. pl. clix.—Stepanie Baranni. J. G. Gmelin, It. sib. i. 368.—Kameuni Baranni, oder Musimons. Steller, Camtschate. 127.—Das wilde Schaaf, et der Weissars der Alten. Gefn. thierb. 154. 155.—Orientalisches Schaaf. S. G. Gmelin, It. iii. 486. t. 55.—Wild Sheep. Penn. hist. of quad. n. 11 H *.—Siberian Chamois. Briff. quad. 42.

Inhabits, in small flocks, the rocky and desert places, exposed to the heat of the sun, on the Alpine region in the center of Asia, in Kamtschatka, the Kurili islands, probably on the west side of North America, and in California; and on the highest mountains of Barbary, Sardinia, Corsica, and Greece.—This animal is about the size of a small Deer, and has much the appearance of being a wild Sheep: It is excessively wild, swift, and active, and fights violently with its horns; it acquires its full growth in two years, and seldom lives more than fourteen; the female brings one or two lambs in the month of March: The general colour in summer is a brownish ash, mixed with grey on the upper parts of the body, and a whitish ash on the lower parts; in winter the former changes to a rusty grey, and the latter to a whitish grey; in winter the hair is about an inch and a half long, which falls off in spring, and the summer coat is very short; the tail is very short, of a white colour, and brownish at the end; the ears are erect and sharp pointed; the eyes are large, and generally of a brown or blue colour; the horns, which come to their full size in three years, are whitish, angular, wrinkled transversely, large, close at their bases, and placed on the top of the head, then rise at first nearly upright, are reflected backwards, divergent, and turned downwards and outwards at the ends; those of the female are smaller, and more hooked, but are sometimes entirely wanting; the hind legs are rather longer than the fore legs, which fits the animal rather for running up hill than on plain ground: The horns of the old Rams are said to grow to such an enormous size as to weigh fifteen pounds each, and to measure two Russian yards in length. The flesh and fat are esteemed great delicacies in Siberia.

β. Corsican Argali.—*Ovis Ammon europaea*.

Resembles the former, but is of a brown colour tinged with tawny on the upper parts, with a white mark on each side pointing to the belly. Penn. hist. of quad. n. 11. H *. 2.

I have introduced this variety on the authority of Mr Pennant, who distinguishes between the Argali of Corsica and the Siberian, though the difference seems chiefly in colour; one specimen,

brought from that island by the famous Paoli, differed from the above in colour, having a large white spot on the front of the neck, and being black on the shoulders. In Corfica this animal is named Mufro. It is probable that the Argali once inhabited Britain, as Boethius mentions Sheep in St Kilda larger than a He-goat, with horns as big as those of an Ox.

734

4. Pudu.—4. *Ovis Pudu*. 4.

Has round, smooth, divergent horns.

Capra Pudu. Molina, hist. nat. Chil. 273.

Inhabits the Cordelieras in South America.—This animal is about the size of a half year old kid, and lives in flocks on the mountains, from whence it descends into the southern plains of Chili when the hills are covered with snow; at that season it is easily caught, and very readily becomes tame; it resembles a Goat in appearance, but the horns are small, and are turned round outwards like those of Sheep, and it has no beard; the female has no horns; the general colour is dusky. This is the only animal of the genus which seems indigenous to America, though even this instance is uncertain; for neither is the animal fully known to naturalists, nor are we completely assured that it may not be the progeny of Sheep originally transported thither from the Old World.

XL. O X.—39. *B O S*. 32.

Has hollow persistent horns, which are smooth, and bent outwards and forwards in a semilunar form. There are eight cutting teeth in the lower jaw, none in the upper, and no tusks.

The animals of this genus are extremely useful to mankind, serving as beasts of draught and burthen, and furnishing excellent beef, milk, cheese, butter, curds, and whey, as food; their skins make excellent leather for many purposes; the fat is used for making soap and candles; the horns are made into a variety of useful utensils; even the hoofs, bones, and hair, are converted to use. They principally delight in flat pastures, avoiding woods and steep hills; they fight by pushing with their horns; the voice is named *lowing*, and *bellowing*: The male is called Bull, when emasculated Ox; the female Cow, when spayed Heifer; the young Calf; and, like the Sheep, it has various appellations for different ages and circumstances, as Steir, Stot, Runt, Keillie, Stirk, Seg, and many others, which vary in different districts. In the same manner as with the two former genera, it is difficult to arrange this genus with propriety, the proper limits between species and variety admitting of considerable doubt.

1. Common Ox.—1. *Bos Taurus*. 1.

Has round horns, which are curved outwards; and a pendent dewlap. Fami. Succ. 46.

Inhabits almost every part of the world, either in a wild or domesticated state.—This species is subject to great variety in form, colour, and figure of the horns; the following subdivision and enumeration of the varieties, is regulated by that of Dr Gmelin, with some slight alterations on the authority

thority of Mr Pennant; though some of the kinds considered only as varieties seem fully as specifically different from the rest as others which are here placed as distinct species, and even some of these last have very near resemblances either to each other, or to one or other of the varieties of this first species.

A. Wild Ox.—1. *a. B. Taurus ferus. a.*

735

a. Urus.—1. a. a. B. Taurus Urus.

Has thick short horns which are reflected forwards, and a curly fore-head. Briss. regn. an. 80. n. 3.

Bos ferus. Plin. hist. nat. viii. c. 15.—Urus. Caes. bell. gal. vi. c. 28. Gefn. quad. 157. Aldrov. bif. 347. f. p. 348. Jonst. quad. 50. t. 20. Raj. quad. 70. Klein, quad. 11. Bell, trav. i. 221. Rzacz. pol. 228. Bewick, hist. of quad. 38. and fig.—Bos silvestris. Charlet. exerc. 8.—Auerochs. Gefn. thierb. 299. Sm. Buff. vi. 150. Ridinger, wilde th. t. 37. BRIT. ZOOL. i. 15. Penn. hist. of quad. n. 6.

Inhabits the marshy woods of Poland, Prussia, and Lithuania.—This is probably the stock of all the European domestic breeds; and though Dr Gmelin quotes Sibbald under the third variety, Bison, as describing the wild cattle of Scotland with a long mane, there is reason to suppose that circumstance a mistake, as the remains of that breed, still preserved in several parks in England, have no mane, and resemble the common breed very much. These are invariably white, with white horns, black noses, and red, black, or brown ears; they are exceedingly wild, and rather dangerous, especially the Bulls in rutting time, and the females when suckling their calves. Bewick, hist. of quad. 34. and fig.

736

β. Bonafus.—1. a. b. B. Taurus Bonafus.

The horns are reflected backwards, and the neck is furnished with a long mane. Briss. regn. an. 84. Syst. nat. ed. xii. 99.

Βοναστος. Arist. hist. an. ii. c. 5. 7. xi. c. 71.—Μορως. Aelian. an. vii. c. 3.—Bonafus. Plin. hist. nat. viii. c. 15. Gefn. quad. 145. Aldrov. bif. 358. f. p. 361. Jonst. quad. 51. t. 18. 19. Charlet. exerc. 8. Raj. quad. 71. Sm. Buff. vi. 150.

737

γ. Bison.—1. a. c. B. Taurus Bison.

The horns are reflected forwards, the back is hunched, and the neck has a long mane. Syst. nat. ed. xii. 99. n. 3.

Bos Bison albus, having the horns reflected forwards, and the neck clothed with a very long mane. Briss. regn. an. 82. n. 5.—Bos Bison, having the horns reflected forwards, the back hunched, the neck furnished with a long mane, and the throat with a long beard. Briss. regn. an. 82. n. 6.—Βισωνες. Oppian. cyneg. ii. 159.—Bison. Plin. hist. nat. viii. c. 15. Gefn. quad. 143. Aldrov. bif. 353. 357. f. p. 355. 356. Jonst. quad. 51. t. 16. 17. Charlet. exerc. 8. Sibbald. Scot. 7. Raj. quad. 71. Rzacz. polon. 214. Sm. Buff. vi. 150.—Wyfent. Gefn. thierb. 296.

The Bonafus and Bison, though considered as distinct by Dr Gmelin, are supposed by the Count de Buffon to be the same animal, and to be the original stock of all the European Oxen; consequently

quently it must be the same with the Urus, and the various descriptions of authors must be owing to accidental variations from age, climate, and food. They must however be carefully distinguished from the American Buffalo, afterwards described, which is called Bison by Buffon.

B. Domestic Ox.—1. β . *B. Taurus domesticus*.

738

δ . European Ox.—1. β . *g. B. Taurus europaeus*.

Has, in general, round, smooth horns, which are distant at their bases and are reflected forwards; and neither hump nor mane.

Bos, Taurus, Vacca, Vitulus. Plin. hist. nat. viii. c. 45. 46. Gefn. quad. 24. 25. 103. 124. Schwenkf. ther. 63. 65. 70. Aldrov. bif. 13. f. p. 36. Jonst. quad. 13. t. 15. Wagn. helv. 167. Sibbald. Scot. 7. Rzacz. polon. 37. Sloan, jam. ii. 327.—Bos domesticus. Jonst. quad. 36. t. 14. Charlet. exerc. 8. Raj. quad. 70. Mus. ad. fr. i. 12. Briff. regn. an. 78. n. 1. Klein, quad. 10.—European Ox. White, in trans. of phil. and lit. soc. Manch. i. c. 27. Penn. hist. of quad. n. 6. G. Sm. Buff. iii. 423. pl. xiii. BRIT. ZOOL. i. 15.

The largest cattle of this kind are found in Poland, Holstein, Jutland, Podolia, and Ukrain. A much smaller breed is produced, often without horns, in the Highlands of Scotland, Wales, Iceland, and other northern and mountainous countries.—This domestic breed is so variable in appearance, and in the form of the horns, as to preclude the possibility of enumeration in a systematic work; in some the horns are wanting, in some large, in others small, sometimes extended directly outwards, or reflected backwards, upwards, forwards or downwards: In general the Bulls are very stupid, obstinate, vicious, and quarrelsome, and when angry, either by being teased or in rutting time, they attack mankind, or each other, violently with their horns, first showing their rage by horrible bellowings, and by tearing up the ground with their feet and horns. The Bulls have a furlly aspect, a strong and curly fore-head, and a very stern menacing appearance; the Cows and Oxen have a more mild and stupid look, and are less dangerous, though the Cow is apt to but when she has young: They are exceedingly useful as beasts of burthen, and for ploughing the ground; their flesh, milk, cheese, butter, and fat, are of almost indispensable use to mankind; even their dung is a most excellent manure, and their horns are converted into valuable articles of manufacture. They are more subject to murrain than the other domestic cattle, and are much infested by the Gad-fly, Tabanus, Canapis calcitrans, and by Lice; they are fond of warm, open, flat, and rich pastures, and are apt to be poisoned by Hemlock, Aconite, and Anemone. They seldom exceed fourteen or fifteen years of age, and in general are fattened for the butchery long before that period. The female goes nine months with young, and brings commonly one Calf, seldom two, at a time.

The following animals are considered by Dr Gmelin as varieties of the domestic breed, though many of them have such remarkable differences as would constitute, in other genera, sufficient marks for specific distinction.

739

ϵ . Indian Ox.—1. β . *a. B. Taurus indicus major*.

Has short horns, bending back close to the neck, with a large fatty lump on the shoulders: Of a large size and reddish colour. Penn. hist. of quad. n. 6. A. pl. i. fig. inf.

Indian Ox. Sm. Buff. vi. 178.

Inhabits

Inhabits India, Africa, and Madagascar.—The lump is composed entirely of fat, and is esteemed a great delicacy; this breed will intermix with the common kind, but in a few generations the lump disappears; it grows to a vast size, the neck is prodigiously thick, and the legs rather short in proportion to the size and length of the body.

740

ζ. Zebu.—1. β. b. *B. Taurus indicus minor*.

Has short, erect horns, which are turned a little forwards: Of a very small size, with a lump on the shoulders. Penn. hist. of quad. n. 6. B. pl. i. fig. sup. Syst. nat. ed. xii. 99. n. 6.

Zebu. Sm. Buff. vi. 164. 240. pl. clxxx.—*Bos scythicus*, with a hunch on the back. Charlet. exerc. 8.—Little Indian Buffalo. Edw. av. 200. t. 200.

Inhabits India, Persia, and China.—This animal is the common beast of burthen in India, where it is likewise used to draw carriages, and is even used for riding.

741

η. Surat Ox.—*B. Taurus indicus minimus*.

Of a very diminutive size. Penn. hist. of quad. p. 17.

Inhabits the country near Surat in India.—This breed is not larger than a great Dog, has a fierce look, and is used about Surat to draw children in small carts.

742

θ. Abyssinian Ox.—1. α. c. *B. Taurus abessinicus*.

Has the horns only adhering to the skin and hanging pendulous; the back is furnished with a hunch. Penn. hist. of quad. n. 6. C.

Abyssinian Ox. Lobbo, voy. 70. Flacourt, voy. 151. Sm. Buff. vi. 178.

Inhabits Abyssinia, Madagascar, and probably in other parts of Africa.

743

ι. Boury.—1. α. d. *B. Taurus madagascariensis*.

Of a large size and white colour, with pendulous ears, and a hunched back. Penn. hist. of quad. n. 6. D.

Madagascar Ox. Flacourt, voy. 151.—Adel Ox. Purchas, pilgr. ii. 1106.

Inhabits Adel and Madagascar.

744

κ. Tinian Ox.—1. α. e. *B. Taurus tinianensis*.

Of a white colour with black ears. Penn. hist. of quad. n. 6. E.

Inhabits the island of Tinian.

745

λ. Lant.—1. α. f. *B. Taurus africanus*.

Of a white colour, with elegant horns, slender legs, black hoofs, and of vast swiftness. Penn. hist. of quad. n. 6. F.

Inhabits Africa.—Is swifter than most horses, and the hide is said to be impenetrable to a bullet. This is probably a species of Antelope.

746

2. Arnee.—*Bos Arnee*.

Has long erected femilunar horns, which are flattened and annularly wrinkled, with smooth, round, approaching points. Edin. Col. mus. Weir's mus.

Inhabits India north from Bengal.—This animal is of vast size, and is hitherto nondescript. A skeleton of the head with the horns is in the Edinburgh College Museum; the description given of the living animal, by a British officer, who met with one in the woods in the country above Bengal, is, that it is about fourteen feet high, most probably estimating the distance from the ground to the tip of the horns, that it partakes of the form of the Horse, Bull, and Deer, and was very bold and daring; this last circumstance establishes its genus, as all the other horned animals of the ruminant or cloven footed tribe are shy and timid; and is confirmed by a Mogul painting in the possession of the late Mr Ross of Edinburgh, in which, among a vast variety of figures are two enormous Bulls, with horns exactly like those in the museum, and which seem at least eight feet high at the shoulder, if a man walking close by the side of one be taken as a scale. The engraving, which is an exact copy from the above mentioned painting, even without attempting to correct its erroneous drawing, will give a more accurate idea of the Arnee, by which name the animal is known to the natives of India, than can be conveyed in words. Except in the form of the horns, it resembles our common breed, and, by the painting, is of a black colour, quite smooth, and without hunch or mane.

747

3. American Bison.—2. *Bos americanus*. 2.

Has short, rounded, distant horns, pointing outwards; the neck, fore-head, breast, and chin, are clothed with long woolly hair, and the shoulders are highly hunched. Syst. nat. ed. xii. 99. n. 3. ♀.

Bos Bison americanus. Briff. regn. an. 83. n. 7.—*Taurus mexicanus*. Hernand. mex. 587.—*Taurus Quivirae*. Fernand. an. 10.—Armenta. Laet, amer. 303. Nieremb. hist. nat. 181.—*Taurus novae orbis*. Nieremb. hist. nat. 182.—Florida Bison. Raj. quad. 71. Klein, quad. 13.—*Boeuf de Canada*. Charlev. nouv. fr. iii. 131.—*Boeuf sauvage*. Du Pratz, louis. ii. 66.—American Bison. Sm. Buff. vi. 198. pl. clxviii.—Buffelo. Lawton, carol. 115. Brickn. n. amer. 107. Catesby, carol. app. 27. t. 20.—American Beeves. Dobbs, Hudson's Bay. 41.—Wilde Ochsen. Kalm, It. ii. 350. 425. iii. 351.—American Ox. Penn. hist. of quad. n. 6. H.—Bison. Penn. Arct. zool. n. 1.

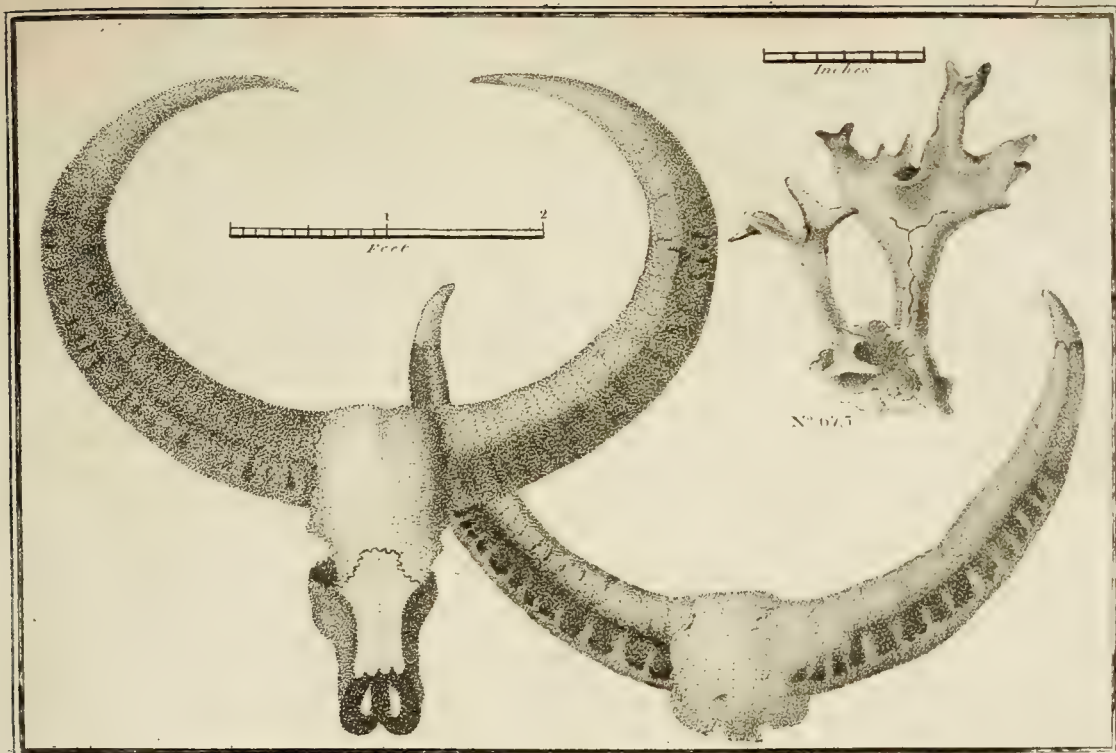
Inhabits Mexico and the interior parts of North America, as high as near Hudson's Bay.—Is found in great herds in the Savannas, is fond of marshy places, and lodges among reeds; is very fierce and dangerous, yet may be tamed when taken young. It is of vast size, weighing from sixteen hundred to near three thousand pounds; the fore parts of the body are excessively thick and strong, and are covered at all seasons with a long undulated fleece of a dull rust colour; the hinder parts are very slender and weak in proportion, being naked, wrinkly, and dusky in summer, but covered like the foreparts in winter; the shoulders are surmounted by a large fleshy hunch; the tail is about a foot long, mostly naked, and tufted at the end with black hairs. Mr Pennant considers this and the European Bison as of the same species.

748

4. Musk Ox.—3. *Bos moschatus*. 3.

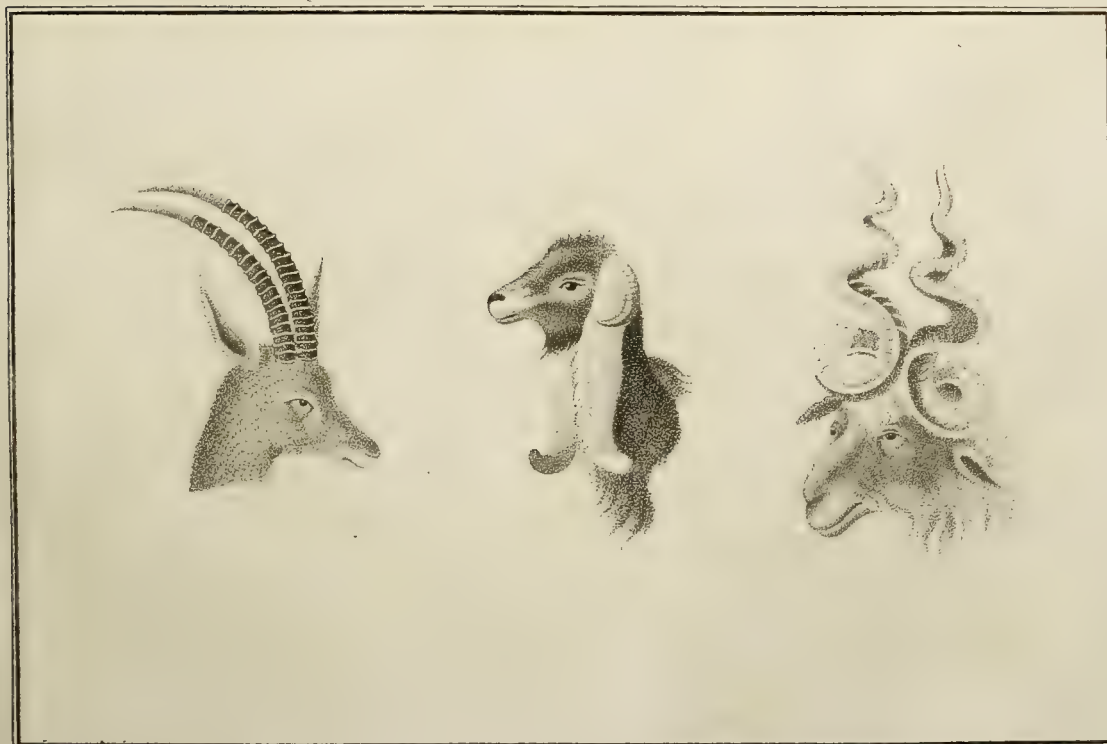
The horns, which are very thick, broad, and close at their bases, bend outwards close

to



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to the head, then downwards and a little backwards, having the points rounded, and turning upwards and outwards. Penn. Arct. zool. n. 2. pl. vii.

Musk Ox. Penn. hist. of quad. n. 9. pl. ii. f. 2. Dobbs, Hudson's Bay. 18. 25.—Boeuf musqué. Jeremie, voy. iii. 314. Charl. nouv. fr. v. 194. Sm. Buff. vi. 191. Lev. mus. Edin. mus. Weir's mus.

Inhabits North America, from New Spain to the Icy Sea.—The Musk Ox lives in herds of twenty or thirty individuals, frequenting mostly the rocky and barren mountains; it runs nimbly, and is very active in climbing the rocks. In height this species is lower than a Deer, though much larger in the belly and size of the limbs; the horns of an old Bull are near two feet in circumference, and the same in length, and sometimes weigh thirty pounds each; those of the Cow have the same curvature with the Bulls, but are smaller and more distant at the bases. The whole body is covered with very long, fine, black hair, having a dusky mane, tinged with reddish, on the neck and back; under this outer coat is a fleece of exquisitely fine ash coloured wool; the shoulder is hunched; the legs are covered with smooth whitish hair; the hoofs are short, broad, and black; the tail is very short, and is covered and involved in the general long hairy coat; the ears are erect, sharp pointed, and dilated in the middle, being thickly covered with dusky hair, and marked with a white stripe. The flesh tastes very strong of musk, but is wholesome, and the heart is so strongly infected as hardly to be eatable. Some skulls of this species, with the horns, have been found in the mossy plains of Siberia near the mouth of the Oby; and one was seen by Fabricius that had floated on the ice to Greenland, though he supposed it to belong to the Grunting Ox.

749

5. Grunting Ox.—4. *Bos gruniens*. 4.

The horns, which are short, rounded, slender, and sharp pointed, are distant at the bases, erect, and bent outwards; the hair on all parts of the body is very long and pendent; the tail is covered with very long, flowing, silky hairs.

Grunting Ox, with a tail like that of a horse. I. G. Gmelin, nov. com. Petrop. v. 339. t. 7.—Bubalus, with a tail like that of a horse. Pall. act. Petrop. i. part 2. p. 332.—Boeuf velu. Le Brun, voy. i. 120. t. 129.—Cow of Tartary. Sm. Buff. viii. 225.—Bubul. Bell, trav. i. 224.—Tangutischer Büffel. Pall. nord. Beytr. i. t. 1.—Grunting Ox. Penn. hist. of quad. n. 7.—Poephagus. Aelian, de an. xvi. c. 9.

Inhabits Tangut, Mongalia, and Thibet; and is cultivated, though with considerable variety of size and colour, in Siberia, China, Persia, and India.—The size of this animal is various; some individuals must be very large, as the tail, which does not reach the ground, is sometimes six feet long; the head is short, with a broad nose, thick hanging lips, and broad ears, which point downwards, and are beset with coarse bristles; the horns are distant, short, slender, and very sharp pointed, having a long curling tuft of hair between; the hair on the middle of the fore-head is radiated; the space between the shoulders is much elevated; along the neck, and sometimes along the whole back, is a kind of white mane; the head and body are black; the hair on the belly, throat, and neck, is very long, while on the rest of the body it is like that of a Goat; the hoofs are large, and the spurious hoofs project considerably; the tail is broad, and is covered with long, flowing, glossy, silky hairs, sometimes white or silvery, and at other times black. The flesh of the full grown animals is hardly eatable. A bezoar is frequently found in the stomachs of this species.

The above description is taken from the wild breed, which is of tremendous fierceness, inasmuch that if wounded in the chase they turn furiously on the assailant, and if he does not escape they never cease tossing him with their horns till he is destroyed; even the domesticated breeds retain their fierceness, and are easily irritated, especially at the sight of any thing red; their anger is expressed by shaking their bodies, moving their tails, and by the menacing look of their eyes, and, if not guarded against, their attacks are so sudden and violent that they can hardly be avoided. This remarkable species or variety of Ox was first mentioned by Aelian among the ancients; they are afterwards taken notice of by Cosmos, Rubruquis, and Marco Paulo, which last says that they almost equal the Elephant in size: The domesticated varieties, to be taken notice of below, though employed for carriage and draught, are liable, like their original stock, to sudden passion, which obliges the inhabitants to cut off the sharp ends of their horns to render their attacks less formidable. The voice is a kind of grunting like that of a Hog, which is more frequently repeated by the Cows than the Bulls; they procreate with the common domestic breeds, and Dr Gmelin seems to doubt whether the Buffalo may not be derived from this species. The following varieties are mentioned by authors, besides the wild breed just described.

750 β . Ghainouk.—*Bos gruniens Ghainouk*.

This, though domesticated, resembles the wild breed in every thing, except that, like all cultivated cattle, it is subject to considerable variety in colour. Pennant.

751 γ . Sarlyk.—*Bos gruniens Sarlyk*.

This is a degenerated race, but not described; perhaps it is the hybrid produce of the genuine breed with the common cattle of the country. Pennant.

752 δ . Hornless grunting Ox.—*Bos gruniens ecornis*.

Has no horns, but is furnished with an immense thickness of bone on the fore-head. Pennant.

753 6. Buffalo.—5. *Bos Bubalus*. 5.

Has flat horns, which are first extended outwards, then turned upwards, and bent inwards at the ends.

Bos 'αγρο', ἐν 'Αραχωτοῖς. Arist. hist. an. ii. c. 1.—*Bos indicus*. Plin. hist. nat. viii. c. 45.—*Bos Bubalus*. Briff. regn. an. 81. n. 4.—*Bubalus*. Gefn. quad. 139. Jonst. quad. t. 20. Raj. quad. 72.—*Buffelus*. Aldrov. bif. 365. f. p. 366. Jonst. quad. 53. Charlet. exerc. 8. Klein, quad. 10.—*Buffalus*. Pall. nov. com. Petrop. xiii. 460. t. 11. 12.—*Taurelephas*. Ludolf, aethiop. i. c. 10. n. 1.—*Buffalo*. Sm. Buff. vi. 151. pl. clxviii. Barbot, guin. 209. 486. Penn. hist. of quad. n. 8. Zimmerman. 369.—*Buffel*. Gefn. thierb. 58.—*Buffelochsen*. Kolben, Cape. 143. t. 5. f. 2. Br. mus. Ashm. mus. Lev. mus.

Inhabits Asia, being found wild in Malabar, Borneo, and Ceylon, and is domesticated in Africa, India, and Italy.—The Buffalo is larger, and more thickly made than the Domestic Ox, with which species it will not propagate: The different times of gestation shew the difference of species, as the Common Cow goes nine, and the female Buffalo twelve, months with young. They were introduced

ced into Italy in the sixth century by the Lombards; they are used for draught and carriage, being guided by means of a ring in the nose, and are employed for the dairy, though the milk is much more greasy than that of common Cows. The skin is exceedingly thick; the hair is black or dusky red, and rather scanty; in very hot countries the skin is almost naked; the head is small, with curly hair on the fore-head, and a kind of beard under the throat and jaws; the horns are black, thick, somewhat compressed, and often very large; there is no dewlap on the breast; the ears are large, the nose is broad, and the eyes are white; the limbs are long, and the tail is short and slender.

Mr Pennant mentions the following animals as varieties of the Buffalo.

754

β. Naked Buffalo.—*B. Bubalus feminudus*.

The horns are small, compressed sideways, taper, sharp pointed, and standing backwards: The rump and thighs are naked. Penn. hist. of quad. n. 8. A. pl. ii. f. 1.

Inhabits India.—This animal is of a small size, like a Welsh runt; the hair on the fore part of the body is bristly, and so thin that the skin appears through; on the rump are two dusky perpendicular stripes, and on the thighs two transverse bands of the same colour.

755

γ. Anoa.—*B. Bubalus Anoa*.

Of a very small size. Penn. hist. of quad. n. 8. B.

Inhabits the mountains of Celebes.—This animal, of which we have no description, is about the size of a middling Sheep, and is very fierce; it lives in small herds, taking shelter in the caverns, with which the mountains of that island abound; is very difficultly caught, and very impatient of confinement.

756

δ. Guavera.—*B. Bubalus Guavera*.

Has a hunch on the back; and the lower half of the legs are white. Penn. hist. of quad. n. 8. C. Knox, Ceylon. 21.

Inhabits Ceylon.—The description of this animal is not sufficient to point out its proper place in this genus, all that Mr Knox says being that its back stands up in a sharp ridge.

757

7. Cape Ox.—6. *Bos cafer*. 6.

The horns, which are very broad and closely united at the base, stand first outwards, then turn forwards, and the points, which are taper, bend upwards and inwards. Sparrmann, act. Stock. 1779, i. n. 8. t. 3. f. inf.

Cape Buffalo. Sparrm. voy. pl. ii. fig. inf.—Cape Ox. Penn. hist. of quad. n. 9. A. Masson, Phil. Trans. lxvi. 296. Forsters, voy. i. 83.—*Bubalus africanus*. Briss. regn. an. 79. n. 2. Jonst. quad. t. 18.—Africanischer Buffel. Gefn. thierb. 60.—*Bos africanus*. Raj. quad. 73. Aldrov. bis. 363. f. p. 364. Jonst. quad. 52.

Inhabits Africa near the Cape, and in Guinea.—This is a very large, excessively fierce, and enormously strong animal; it lives in the woods, is fond of wallowing in the mire, and is very dangerous to travellers, rushing suddenly from the thickets in which it lies concealed, and tramples men, horses,

ses, and oxen, under its feet; is so swift, especially in running up hill, that a horse cannot overtake it; and so strong, that one of three years old being yoked in a waggon with six tame oxen, their whole united strength could not force it to move. It is of a black or dusky ash colour; the face is covered with long harsh black hair; the chin, underside of the neck and dewlap, have long, coarse, pendent, black hair; the horns are very thick and rugged at the base, near thirteen inches broad, and laid flat so as to cover most part of the top of the head; the upper half is smooth, taper, and sharp pointed; they measure sometimes above three feet long, and weigh twenty-five pounds; the skin is thick, tough, and very strong; the hairs are very stiff, and about an inch long, lying flat on the adult animals; before the knees, and on the belly, it is long and undulated; on the top of the neck is a small mane; the ears are large and flouching; the tail is short, almost naked, and tufted at the end with long black hair. The body and limbs are very thick and strong; it is above eight feet long, and about six feet high; the head hangs much, and has a very fierce malevolent aspect. The flesh is coarse, but juicy, and has the flavour of venison.

758

8. Baas.—*Bos barbatus*.

Has short horns; a beard on the chin, and curly hair on the breast. Penn. hist. of quad. p. 30.

Cape Auerochs. Journ. histor. 43. 46.

Inhabits the country north from the Cape.—This animal, which is very slightly described, lives in the country of the Namaques, who call it Baas, or the Master Courier, on account of its vast swiftness: It is like the Common Ox, but larger, and of a grey colour; the head is small, the horns short, the hair on the breast is curled, and on the chin is a beard like that of a Goat.

759

9. Dwarf Ox.—*Bos pumilus*.

The horns are almost erect, close at the base, recede in the middle, and approach at the points. Penn. hist. of quad. n. 10. pl. ii. f. 3.

Bubalus, f. Bos parvus africanus. Belon, obs. 119.—Juvenca sylvestris. Prosp. alp. aeg. i. 233. t. 14. f. 2.—Bos exiguus africanus. Klein, quad. 11.—Small Ox of Belon. Sm. Buff. vi. 165.—Petit boeuf d'afrique. Belon. voy. 119. 120.

Inhabits Africa.—This animal was seen at Cairo by Belon, who says it came from Asamie or Azafi in Morocco: It is larger than a Roe, but less than a Stag, compact and well made, with a thick neck, the shoulders a little elevated, and the legs short; the hair is shining, and of a tawny brown colour, and the tail is terminated by long and very coarse hairs. The Count de Buffon supposes this animal to be the same with the Zebu, and Mr Pennant alledges that it may possibly be a variety of the Dant.

VI. B E L L U Æ.

Has obtuse wedge-like, truncated fore-teeth in both jaws. The feet are armed with hoofs.

XLI. H O R S E.—40. *EQUUS* 33.

Has fix parallel, erect, fore-teeth above, and fix, which project a little, in the lower jaw; one short tusk, distant from the other teeth on each side of both jaws: The female has two teats in the groin.

This genus is the only one which has single hoofs, though that circumstance is left out of the character on account of an obscure species in Chili which is said to have cloven hoofs; several of the species are of considerable use to mankind for draught, for burthen, and for the saddle; they all fight by biting, and by kicking with their hind feet. It is the only race of animals in which the mammae are wanting on the males, though we are told that they are placed on the glans penis.

1. Common Horfe.—2. *Equus Caballus*. 1.

Has solid hoofs, a long flowing mane, and the tail is universally covered with long hairs.
Syst. nat. ed. xii. 100. n. 1. Briff. regn. an. 100. n. 1.

ἵππος. Arist. hist. an. i. c. 5. 7. ii. c. 5. 8. 18. iii. c. 10. v. c. ii. vi. c. 22. vii. c. 17. viii. c. 11. ix. c. 5. Aelian, an. iii. c. 2. iv. c. 6. 7. 8. 11. Oppian, cyneg. i. 166.—Equus, Equa, Equiferus. Plin. hist. nat. viii. c. 42. x. c. 63. xi. c. 37. xxviii. c. 10. 11. Gefn. quad. 442. f. p. 443. Schwenkf. theriot. 89. Aldrov. solid. 2. f. p. 21. Jonst. quad. t. 1. 4. Charlet. exerc. 3. Wagn. helvet. 174. Sibbald. Scot. 6. Raj. quad. 62. Rzacz. Polon. 217. 240. Sloan, jam. ii. 327.—Cheval, or Horfe. Sm. Buff. iii. 306. pl. xi. Penn. hist. of quad. n. 1. BRIT. ZOOL. i. 1.—Ross. Gefn. thierb. 306. f. p. 307.

α. Wild Horfe.—α. *E. Caballus ferus*.

Of this there are several varieties mentioned in authors.

Wilde Pferde. J. G. Gmelin, It. i. 211. iii. 510. S. G. Gmelin, It. i. 44. t. 9. Pallas, It. i. 211.—Tarpany. Rytschk. Orenb. i. 223.—Takija, or Wild horfes. Bell, trav. i. 225. Du Halde, Chin. ii. 254. Leo. afric. 340. Journ. histor. 40.

β. Domestic Horfe.—β. *E. Caballus domesticus*.

Of this there is almost an infinite variety, in colour, size, and form. Klein, quad. 4.

Horfes

Horſes are domeſticated and cultivated with great care in almoſt every part of the earth. It is the moſt generous, moſt ſpirited, and moſt docile of all quadrupeds, the Dog alone excepted, and is excellently adapted for a variety of uſeful purpoſes, for draught, burthen, and riding. In a naturally wild ſtate, horſes are found in Beſſarabia, and the deſerts of Great Tartary; thoſe of the deſerts near the Don are the offspring of the Ruſſian cavalry horſes, turned looſe for want of forrage during the ſiege of Aſoph in 1697: Wild Horſes are likewiſe found in various parts of Africa; and, though none of the ſpecies was found in America before its diſcovery by Columbus, there are now vaſt numbers wild in the great Savannas of South America, on both ſides of the Rio Plata, deſcended from ſuch as were carried there by the Spaniards, and happened to ſtray from their maſters; in the wild ſtate, they go in flocks under the conduct of a leader, are extremely vigilant, placing centinels to give notice of danger, very timid, ſhy, and ſwift. Thoſe of Tartary are generally of a dun or mouſe colour, and leſs than the domeſtic kind, being covered with a very thick coat of hair, eſpecially in winter; their heads are large, and their fore-heads much arched.

The domeſtic horſes vary much in ſize, colour, figure, and ſpirit, from climate, ſoil, food, breeding, and management: The moſt elegant, ſwifteſt, and moſt generous, come from Arabia; very ſmall ones are found in Scotland, eſpecially the Shetland iſles, Iceland, Norway, and Ceylon, Horſes not exceeding thirty inches high having been brought from that iſland, whereas ſome of the European breeds reach ſix feet. England, from attentive culture, and by intermixture of the beſt foreign breeds, can boaſt of having the ſwifteſt, largeſt, ſtrongeſt, and moſt elegant varieties now in the world. The male is named Horſe, or Stallion, when emacſculated Gelding, the female Mare, the young Foal, when male Colt, if female Filly: The voice is called neighing: The paces are walking, trotting, ambling, pacing, cantering, prancing, galloping, running: They are diſtinguiſhed, according to the purpoſes to which they are applied, and other circumſtances, into Draught-horſe, Pack-horſe, War-horſe, or Charger, Hunter, Racer, Pad, Hackeny, or Road-horſe, Galloway, Ponney, Shetty, Blood-horſe, &c. They fight by biting, by kicking with the hind feet, and by ſtriking with the fore feet: They feed entirely on grain and herbage, and eat even Aconite with impunity: The tail is of great uſe for driving away flies and other inſects: When fatigued, or on purpoſe to ſcratch, Horſes frequently roll on their backs: The ſtomach is ſmall, and the food, without being ruminated, paſſes through the body undiſſolved, only a tincture being drawn by the digeſtive powers; the ſmall guts are long, the colon and caecum, or blind gut, are very large: The Horſe has no gall bladder, and never vomits; the dung is remarkable by its property of becoming very hot during putrefaction. Horſes are much annoyed by hard ſubſtances getting into their ears, or by pricks in the feet; they diſlike dirty or ſpoiled foods, are impatient of the bridle till accuſtomed to it, and are much tormented by the Horſe-fly, Gad-fly, and Phellandrium curculio. They change their fore-teeth in the ſecond, third, and fourth years of their age, and acquire tuſks at five years old: The female goes two hundred and ninety days with young, and ſeldom has more than one foal at a birth. The hide and hair are converted to uſeful purpoſes: The Tartars and Arabs are fond of the fleſh; the former uſe the milk, which they convert by fermentation into an intoxicating liquor, called *Koumiſſ*, which is ſaid to cure conſumptions.

2. Dſhikketei.—3. *Equus Hemionus*. 5.

Has ſolid hoofs, is of a uniform colour with no croſs on the back, and the extremity only of the tail has long hairs. Pall. It. iii. 217.

Dſhikketei, of the Monguls. Pall. nord. beytr. ii. 1. t. 1. Nov. com. Petrop. xix. 394. t. 7.—

Yo-to-tſe.

Yo-to-tſe. Du Halde, ii. 253.—*Ἡμίονος*. Ariſt. hiſt. an. vi. c. 36.—Hemionos. Plin. hiſt. nat. viii. c. 44.—Czigithai. Sm. Buff. vi. 274.—Dſhikketei, Wild Mule, Half-aſs, or Foſund Mule. Penn. hiſt. of quad. n. 2. Zimmermann. 666.

Inhabits the deſerts between the rivers Onon and Argun, the Mongolian deſerts, and the great deſert of Gobi between China and Thibet.—Lives in herds chiefly frequenting ſunny plains, places where ſalt ſprings and ſaline plants abound, and graſſy meadows, but avoiding woods and ſnowy mountains. It is exceedingly ſhy, cautious, timid, and very ſwift, having very acute ſenſes of ſmell and hearing, is very wild, and has not hitherto been tamed. Like horſes and cattle, they are very ſubject to a diſtemper called the *Murrain*; they fight by kicking and biting; the female is in ſeaſon in Auguſt, and brings almoſt always one foal in ſpring; the fleſh is reckoned excellent by the Monguls and Tunguſi, and they uſe the ſkins for conſtructing a kind of boat. In ſize and general appearance this animal reſembles the Mule, though handſomer; the ears and tail are like thoſe of the Zebra, the hoofs and the body are like the Aſs, and the legs reſemble thoſe of the Horſe; it differs from theſe quadrupeds in having a very large head with a flat fore-head, which grows narrow towards the noſe, and in having a ſlender neck, which is more rounded than in the other ſpecies of this genus, and has a ſhort, upright, ſoft, greyiſh mane; inſtead of a lock of long hair on the fore-top, there is a tuft of downy hairs not two inches long; the ears are long, erect, and lined thickly with whitish curly hair; the winter coat is about an inch and a half long, grey at the tips, of a browniſh aſh colour at the roots, exceedingly ſoft, and undulated on the back; in ſummer the coat is much ſhorter, and exceedingly ſmooth, being marked all over with beautiful whorls: The end of the noſe is white, and the reſt of the face ſomewhat tawny; the buttocks, inſide of the limbs, and the belly, are white; a blackiſh liſt runs along the back broadest at the loins, and narrowing to the tail; the tail is like that of a Cow, covered with ſhort hair for half its length, and the lower part with long aſh coloured hairs. The weight of this animal is about five hundred and ſixty pounds; it meaſures ſix feet and a half from the tip of the noſe to the origin of the tail, and is about three feet nine inches high at the ſhoulder: The mouth contains thirty-four teeth, which is two fewer than in a Horſe.

3. Aſs.—4. *Equus Aſinus*. 2.

Has ſolid hoofs; the male has a duſky croſs on the ſhoulders; only the lower part of the tail is furniſhed with long hairs. Syſt. nat. ed. xii. 100. n. 2. Faun. ſuec. i. n. 35. Briff. quad. 70.

Aſne, or Aſs. Sm. Buff. iii. 198. pl. xii.—Eſel. Gefn. thierb. 91.—Aſs. Penn. hiſt. of quad. n. 3. BRIT. ZOOL. i. n. 2.

α. Onager.—2. α. *E. Aſinus ferus*.

The fore-head is much arched; the mane is woolly and duſky; the ears are long and erect.

Onageros. Oppian. cyneg. iii. 183.—Onager. Plin. hiſt. nat. viii. c. 44. 58. Aldrov. ſolid. 352. Jonſt. quad. 20. t. 7. 8. Raj. quad. 63. Pall. act. Petrop. 1777, ii. 258. Varro, de re ruſt. ii. c. 6. Martial, xiii. 97. Pomp. Laet. i. Proſp. alp. aeg. iv. c. 6. Tavern. i. 21.—Onagrus. Gefn. quad. 19.—Aſinus. Charlet. exerc. 4.—*Equus Onager*. Briff. regn. an. 104. n. 5.—Aſne ſauvage. Marmol. afr. i. 53.—Wild Aſs. Bell, trav. i. 212.—Wilder Eſel. Pall. nord. beytr. ii. 22. t. 1. Hablizl, in D°. iv. 88.—Koulan, or Wild Aſs. Penn. hiſt. of quad. n. 3. A.

Inhabits

Inhabits the mountainous deferts of Great Tartary, from whence it migrates during winter into India and Persia, especially about Casbin, where it is found all the year; is likewise found in the south of India, as far as the mountains of Malabar and Golconda; was anciently found in Natolia, Syria, Arabia, and Africa.—This animal is much more elegantly formed, and stands higher on its legs than the Common Afs, and is exceedingly active and swift; although extremely fierce in its wild state, it is very readily tamed, especially when caught young; it has a most exquisite sense of smelling, and very acute vision; is particularly fond of salt ponds and springs, and of saline and bitter plants: The general colour is white with a silvery splendour, the top of the head, neck, and sides, being pale yellow; the mane is dusky or blackish brown; and along the back is a list of a coffee colour, composed of waved bushy hairs, and crossed, in the males, by a similar band at the shoulders; the hairs are softer than those of a Horfe; the skin makes excellent leather, and, by a particular mode of preparation, that which grows about the rump is manufactured, at Astrachan, and in Persia, into chagrin; the flesh is much esteemed by the Kirgisian Tartars. The Onager measures almost seven feet from the tip of the nose to the origin of the tail, of which the head is two feet, and is four feet two inches high before, and four inches higher at the rump, the tail is about two feet, and the ears almost a foot in length; the female is considerably smaller, and less strongly made, than the male, and wants the dark coloured cross band at the shoulders: The upper part of the face, the neck, and sides, are flaxen coloured; the fore parts are divided from the hind by a white band round the body at the flanks; the belly and legs are white, and the dusky list on the back is edged on each side with white: The winter coat is fine, soft, silky, much waved, and feels greasy; while the summer coat is smooth, silky, and even, except some shaded rays pointing downwards at the sides of the neck.

764

β. Domestic Afs.—2. β. *E. Asinus domesticus*.

The fore-head is rather flat; the mane is short; the ears are long and flouching.

Ὀνος. Arist. hist. an. i. c. 17. ii. c. 18. v. c. 11. vi. c. 23.—Asinus. Plin. hist. nat. viii. c. 43. Gefn. quad. 3. f. p. 4. Schwenckf. ther. 61. Aldrov. solid. 295 Jonst. quad. 16. t. 6. Sibbald. Scot. 6. Raj. quad. 63. Sloan, jam. ii. 327. Klein, quad. 6.—Asne. Tavern. trav. i. 344. Charadin, trav. iii. 33. Sm. Buff. iii. 398. pl. xii.—Efel. Osb. ostind. 35.—Afs. Penn. hist. of quad. n. 3. BRIT. ZOOL. i. 2.

The domestic Afs is cultivated almost in every quarter of the world, being a strong, hardy, patient, and sure footed animal, but obstinate, stubborn, stupid, and frequently vicious; it grows to a considerable size, and is tolerably handsome in the warmer regions, but degenerates much in the colder countries, in which their ears slouch considerably more than those which are bred in Africa and the east. Buffon supposes the Afs to have come originally from Arabia to Egypt, and thence, through Greece, to Italy, France, Britain, Germany, and other countries. The voice of the Afs is named braying; he eats greedily of thistles, and other spinous, and disagreeable herbs, which Horses will not touch, except when pressed with hunger. The Afs comes to its full size in about five, and lives for about thirty years; both sexes are very ardent, and the female, after twelve months, according to Buffon, though Linnaeus says two hundred and ninety days, produces almost always one young at a birth. The principal employment of Asses in Britain is for carrying the luggage of beggars, gipsies, and tinkers, and the milk is much commended for pectoral complaints; in Spain and the Levant they are cultivated with great care, especially for the males, which, with mares, produce mules of a fine breed.

765

γ. Mule.—2. γ. *E. Asinus Mulus*.

The hybrid produce of a Jack-aſs with a Mare; has a large clumsy head, long erect ears, a ſhort mane, and a thin tail. Briff. quad. 103. n. 4.

Ὀγεῦς. Ariſt. hiſt. an. i. c. 7. ii. c. 5. vi. c. 24.—Mulus, Mula. Plin. hiſt. nat. viii. c. 44. xi. c. 37. Gefn. quad. 793. Schwenckf. ther. 62. Aldrov. ſolid. 358. Jonſt. 21. t. 6. Charlet. exerc. 4. Sloan, jam. ii. 327.—*Asinus biformis*. Klein, quad. 6.—Mule. Sm. Buff. viii. 1. Penn. hiſt. of quad. p. 8. BRIT. ZOOL. i. 13.—Maul eſel. Gefn. thierb. 108. Oſb. oſtind. 35.

The Mule is much valued for the ſaddle, and for drawing carriages, in Spain, Portugal, Italy, and the Eaſt, and in the warmer parts of America: In theſe countries, where great attention is paid to the breed, it is as tall as the Horſe, exceedingly well limbed, but not ſo handſome, eſpecially about the head and tail; they are moſtly ſterile, though there are a few inſtances of female Mules producing foals, and even of the male having impregnated females both of the Aſs and Horſe ſpecies, but theſe are exceedingly rare.

766

δ. Bardeau.—2. δ. *E. Asinus Hinnus*.

The hybrid produce between a She-aſs and a Stallion; the head is long and thin, the ears are like thoſe of a Horſe, the mane is ſhort, and the tail is well filled with hair. Sm. Buff. viii. 2.

Γινῆς. Ariſt. hiſt. an. i. c. 7.—Hinnus. Plin. hiſt. nat. viii. c. 44. Gefn. quad. 18. Aldrov. ſolid. 358. Jonſt. quad. 21. Charlet. exerc. 4. Raj. quad. 64.

The Bardeau is much ſmaller, and leſs uſeful, as well as leſs common, than the Mule, and is more of a reddiſh colour; in the ears and tail it has a greater reſemblance to the Horſe, but the mane is ſhort like that of the Mule; it is, however, very little known, being ſeldom cultivated on purpoſe, becauſe leſs hardy, and leſs fitted for the various purpoſes of life, than either the Horſe, the Aſs, or the Mule.

767

4. Zebra.—5. *Equus Zebra*. 3.

Has ſolid hoofs; is of a pale buff colour, and ſtriped all over the body with perpendicular brown bands, and the limbs with croſs ſtripes; the ears are ſhort and erect; the mane is ſhort, and the tail is thinly garniſhed with hair at the end. Briff. regn. an. 101. n. 2.

Equus indicus. Jonſt. quad. t. 5.—*Equus braſiliensis*. Jacob. muſ. reg. 3. t. 2. f. 1. Laur. muſ. reg. t. 3. f. 18.—*Equus ferus*, Zebra, f. Zecora. Klein, quad. 5.—Zebra. Purch. pilg. ii. 1001. Charlet. exerc. 4. Raj. quad. 64. Barbot, guin. 486. Penn. hiſt. of quad. n. 4. Nieremb. hiſt. nat. 168. Sm. Buff. vi. 264. pl. clxxxii. clxxxiii.—Zecora. Ludolf. aeth. i. c. 10. n. 35. comm. 150.—Zeura, or Zecora. Lobo. abyſſ. i. 291.—Zebra indica. Aldrov. ſolid. 416. f. p. 417. Jonſt. quad. 21. t. 5.—Male Zebra. Edw. av. t. 222.—Wild Aſs. Kolben, cape. ii. 112.—Indianiſher Maulthier. Gefn. thierb. 120.—Africaniſches Tygerpferd, oder Eſelpferd. Knorr, del. ii. t. k. 8. Lev. muſ.

Inhabits Africa, from Congo and Angola acroſs to Abyſſina, and ſouthwards to near the Cape of Good Hope.—This extremely beautiful animal lives in herds, chiefly frequenting the open plains,
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but is excessively shy, and runs into the woods on the approach of mankind. It is exceedingly swift, vicious, and untameable; is about the size of a Mule, and is shaped much like the Afs, with shorter and less flouching ears. The male and female are marked exactly in the same manner, as described in the character.

768

β. Hybrid Zebra.—*E. Zebra hybridus*.

Mr Pennant informs us, that by painting a common Jack-afs to resemble the Zebra, a female Zebra admitted its embraces, and produced a hybrid animal, some years ago at London; but gives no account of its appearance.

769

5. Quacha.—6. *Equus Quagga*. 4.

Has solid hoofs; is of a bright bay colour on the upper parts of the body, and striped with perpendicular brown lines; the flanks are spotted, and the rump plain; the belly, thighs, and legs, are white. Penn. hist. of quad. n. 5.

Opuagha. Masson, trav. in Phil. Transf. lxvi. 297. Journ. hist. 40.—Quacha. Voy. de M. Hop. 40.—Female Zebra. Edw. av. t. 223.

Inhabits the south of Africa.—This animal is thicker, and more strongly made, than the Zebra, and is more tractable, having sometimes been broken to the draught; it likewise keeps always in separate herds, and is distinguished from the former species by the Hottentots.

770

6. Chilese Horse.—1. *Equus bisulcus*. 6.

Has cloven hoofs. Molin. hist. nat. Chil. 284.

Inhabits South America.—This obscure quadruped, which is only mentioned by Molina, frequents the precipitous and rocky mountains of the Andes or Cordellieras; in size, number and arrangement of teeth, and in general appearance, it resembles the Horse, for which reason it is placed by Dr Gmelin in this genus, though its cloven hoofs are similar to those of the animals belonging to the former order: It is a very vicious, wild, and exceedingly swift animal, having the size, hair, colour, nose, eyes, neck, back, tail, legs, and genitals, resembling the Afs, with which it likewise agrees in its internal structure, but wants the dusky cross on the shoulders, and resembles the Horse in the figure of its ears, and the neighing sound of its voice.—Perhaps this animal may only be a wild Horse, degenerated through the inclemency of the mountainous district which it inhabits, and the circumstance of its having cloven hoofs may be exaggerated, or only a mistake.—T.

XLII. HIPPOPOTAMUS.—41. *HIPPOPOTAMUS*. 34.

Has four fore-teeth in each jaw; those above are placed in pairs at some distance from each other; those below are prominent, the two intermediate teeth being considerably longer than the other two. In each side of each jaw is one tusk; those of the under jaw are very long, much crooked, and

and obliquely cut off at the ends. The feet are each armed with four little hoofs round the edges.

Of this genus there is only one species hitherto known, which is supposed to be the Behemoth of the book of Job.

771

1. Amphibious Hippopotamus.—1. *Hippopotamus amphibius*. 1.

Has four small rounded hoofs on the edges of all the feet. Houttuyn. iii. 405. t. 28.

Ποταμῖος ἵππος. Arist. hist. an. ii. c. 7. 12. viii. c. 24. Aelian. an. v. c. 53.—Hippopotamus. Plin. hist. nat. viii. c. 25. 26. xi. c. 12. 37. 39. xxxii. c. 11. Bel. poiss. 47. f. p. 50. D°. obs. 104. Gefn. aquat. 494. Column. aq. 28. t. p. 30. Aldrov. dig. 181. 183. Jonst. quad. 108. t. 49. Charlet. exerc. 14. Ludolf. aeth. i. c. 10. n. 1. p. 155. Raj. quad. 123. Shaw, trav. 427. Klein, quad. 34. t. 3. Briff. quad. 122. Hasselqu. palæst. 280. Forsk. faun. orient. 4. Radzivil, It. hieros. 142. Sparrman. act. Stock. 1778, iv. n. 12. D°. trav. ii. pl. 4. Chemnitz, naturf. xxi. 84. Journ. histor. 17. t. 2. Allamande, 124.—Hippopotamo. Zeringhi, monogr.—Hippopotame, or Cheval marin. Theven. It. i. 491. Marmol. afr. i. 51. Jussieu, act. Paris. 1724, p. 209. Lobo, abyss. i. 258. Maillet, aeg. ii. 31. Adans. seneg. 73. Sm. Buff. vi. 277. pl. clxxxiv. Penn. hist. of quad. n. 68.—Cheropotamus, et Hippopotamus. Prosp. alp. i. v. 245. t. 22. 25.—River horse. Grew, mus. 14. t. 1.—Hippopotami, River-horses, Water-elephants, or Ker-kamanon. Barbot, guin. 73. 117.—Seekuh, or Sea-ox. Kolben, cape. ii. 129.—Wasserochs. Knorr, del. ii. t. k. 12.—Sea-horse. Dampier, voy. ii. 104. Moor, gambia. 105. 188. 216.

Inhabits the rivers of Africa, from the Nile as far as the Cape of Good Hope, and in the lakes of Abyssinia and Ethiopia, through which the Nile flows.—This animal is gregarious and polygamous, one male appropriating several females; it lives chiefly on the sugar cane, Egyptian bean, and millet, and frequently makes excursions of six miles from the water, its general habitation, during the night in quest of food; it sometimes feeds on the roots of trees, but never on fishes, though some authors say that it devours fish, crocodiles, and even dead carcases of animals. The Hippopotamus is capable of being tamed, as we are informed by Belon that he saw one at Constantinople so gentle that it was sometimes allowed to go loose, and would eat from the hand of its keeper: It is generally of gentle and inoffensive manners, and very shy, unless when irritated or wounded, when it will attack boats and mankind with great fury. On dry land it walks slowly, and even with difficulty, especially in marshy places, on account of its clumsy form and great weight; but when pursued it takes to the water, where it swims with great swiftness, and walks at the bottom with ease; this circumstance is very remarkable, as it has no external conformation, like other aquatic animals, peculiarly fitted for swimming: It cannot, however, remain long under water at a time, being obliged to rise to the surface for breath; this it does, in the day time and in places much frequented by mankind, with great caution, not venturing even to put the nose above water, but in very sequestered situations, and in the night, it often raises the whole head. When it leaves the water, to graze on shore, it sometimes puts out half the body to look around, but sometimes rushes out at once with great impetuosity, and tramples every thing which it encounters under foot. It generally sleeps in places which are overgrown with reeds, either on the banks of rivers, or in islands, and in these places the female brings forth one young at a time, which she suckles in the water. The voice is between that of a Horse and an Elephant, or a Buffalo, and is very sonorous.

The Hippopotamus is almost as large as an Elephant, being sometimes seven-feet high, seventeen feet long, and weighing from four to five thousand pounds, so that twelve oxen have been found necessary to drag ashore the carcase of one that had been shot in a river near the Cape. Dr Gmelin compares the body and general appearance to an Ox, the feet to a Bear, the toughness and thickness of skin to a Rhinoceros, the tusks, tail, hinder part of the body, and mode of living, to a Hog. The head is enormously large, with a very wide mouth; the ears are small and pointed, with a border of short fine hairs; the eyes and nostrils are very small; the lips have several tufts of strong coarse hairs; the tusks are sometimes twenty-seven inches long, and near seven pound weight each; these and the grinders are very white, much harder than ivory, insomuch that some authors say they will strike fire with steel, and, from having the property of preserving their colour without growing yellow, they are much esteemed among dentists for making false teeth; of the grinders there are six on each side above and eight below. The skin is of a dark colour and almost naked, having only a few scattered, and scarcely discernible, white hairs, which stand a little thicker on the neck, but without forming any mane; the skin is so thick and tough as to resist a bullet when dry, and is used by the inhabitants of Africa for making shields. The tail is about a foot long, and almost a foot in circumference at the origin, naked, tapering to a point, and flattened. The legs are extremely thick, and very short in proportion, and the lobes of the feet have no connecting membrane. The flesh is by some authors said to be delicious, while others represent it as very dry and of difficult digestion, while the fat, of which a full grown animal is said to yield about two thousand pounds, is esteemed excellent, and is recommended as a sovereign remedy for pulmonary diseases, on which account it is salted and sent to the Cape, where it sells at a dear rate.

XLIII. T A P I R.—42. T A P I R.

Has ten fore-teeth in each jaw, and no tusks. The fore feet have each four, and the hind feet three hoofs.

Of this genus there is only one species, which is entirely confined to South America, and therefore was unknown to the ancients.

772

A. American Tapir.—1. *Tapir americanus*.

Has a long extensile and flexible proboscis or snout. Briss. regn. an. 119.

Tapir. Sm. Buff. vi. 243. pl. clxxxi.—Long-nosed Tapir. Penn. hist. of quad. n. 69.—Tapihires. Thevet. cofin. ii. 937. b.—Tapiirete. Marcgr. bras. 229. Pif. ind. 101. Raj. quad. 126. Klein, quad. 36.—Tapirouffou. Lery, voy. 154.—Beori. Laet, amer. 328.—Danta. Nieremb. hist. nat. 187. Jonst. quad. 216. Chieza, peru. 20.—Antes. Nieuhof, bras. in Har. voy. ii. 23.—Anta. Marcgr. et Pifo, loc. sup. cit. Gumil. oron. i. 300.—Elan, Elk, or Vagra. Condam. voy. 163.—Maipouri, or Manipouri. Barrere, fr. equ. 160.—Hippopotamus terrestris. Syft. nat. ed. x. 74. n. 2.—Sus aquaticus multifidus. Barrere, fr. equ. 160. Fermin, furin. ii. 80.—Hydrochaerus Tapir. Erxl. mam. 191. n. 1.—Wasserschwein. Knorr. del. ii. t. k. 13.—Mountain Cow. Dampier, voy. ii. 102.—Elephant hog. Wafer, in Damp. voy. iii. 400.—Species of Hippopotamus, or River-horse. Bancroft, guian. 127.

Inhabits

Inhabits the woods and rivers of the eastern coast of South America, from the Isthmus of Darien to the river Amazons.—The Tapir sleeps during the day in the thickest and most covert places of the woods, adjacent to the banks of rivers and lakes, into which it plunges when disturbed, and swims or walks on the bottom in the same manner with the Hippopotamus; it goes about during the night in quest of food, and feeds on grass, sugar canes, fruits, and other vegetables. It is an animal of a mild and gentle nature, and is very easily made tame, being sometimes kept in farm yards in Guiana, and fed along with the cattle; it is timorous, falacious, sluggish, and slow footed, but swims remarkably well, and dives to the bottom of the water, where it walks as well as on dry land. When domesticated it becomes familiar, will take any thing that is offered, and will even rummage with its nose in peoples pockets for meat. This is the largest of the animals which are peculiar to America, being about the size of a small cow, and having some general resemblance to a hog: In the male the nose is elongated into a sort of proboscis or flexible trunk, which extends far beyond the lower jaw, and is capable of being contracted and extended at pleasure; the sides of this snout are furrowed lengthways, and with this the animal is able to lay hold of any thing and convey it to the mouth; the nose of the female is destitute of this elongation, and both jaws are of equal length, ending in a pointed snout: The ears are roundish and erect; the eyes are very small; the neck is thick, short, and has a kind of bristly mane, about an inch and a half long, on its upper part, near the head; the body is thick and clumsy, and the back is somewhat arched; the legs are short and thick, with small, black, hollow hoofs; the tail is very short and naked; the skin is very tough, and is covered with a short dusky coloured fur, which in young animals is spotted with white: The voice of this animal resembles a kind of hiss: There are five grinders on each side in each jaw, with a vacancy between them and the cutting teeth.

XLIV. H O G.—43. S U S. 35.

Has four cutting teeth in the upper jaw, whose points converge; and, for the most part, fix in the lower jaw, which stand forwards: There are two tusks in each jaw, those in the upper jaw being short, while those of the under jaw are long, and extend out of the mouth. The snout is prominent, moveable, and has the appearance of having been cut off, or truncated. The feet are armed with divided or cloven hoofs.

The animals of this genus have a very firm cartilaginous snout, of a round form, provided with strong tendons, and with it they dig in the earth in quest of roots, and other kinds of food; they are in general rather foul feeders, and live almost indifferently on animal and vegetable food, even devouring the most corrupted carcases, and the excrements of other animals; they are likewise fond of wallowing in the mire. The male is named Boar, the female Sow, and the young ones Pigs; the female has a great number of teats disposed longitudinally along the belly and breast, and is extremely prolific.

1. Common Hog.—1. *Sus Scrofa*. 1.

The fore part of the back is beset with hard bristles, and the tail is hairy. Faun. suec. 21. Amoen. ac. v. 461.

The Hog is domesticated almost every where over the earth, except in the Frigid Zone, in Kamtschatka, and other places where the cold is very great.—It has a rank smell, especially the male; digs the earth with its nose, and lives almost upon any thing that comes in its way, succulent vegetables, grafs, roots, grain, animal food, carcases, excrement, and even its own offspring; yet, when food is plentiful, it shews considerable choice. It is a lazy, indolent, and stupid animal, yet can run swiftly when urged, and shews great signs of uneasiness and restlessness before high winds. When it is plentifully fed it becomes exceedingly fat, especially on the surface of the body, between the skin and the panniculus carnosus, or cutaneous muscle; it is fond of basking in the sun and of wallowing in the mire; when irritated it runs furiously against an enemy, making a loud grunting noise, and foaming at the mouth. Though originally unknown in America, it has now become very common, and is extremely useful by destroying Rattle-snakes and other serpents, which it devours with safety. It is exceedingly lascivious, yet very tardy, owing to the length and laxity of the penis; the female has a vast number of teats, goes four months with young, and has very numerous litters, sometimes as far as twenty at a time; it lives to a considerable age, even to twenty-five or thirty years, without losing its teeth; is much infested with lice, and is subject to hydatyds, scrofula, measles, and cutaneous eruptions, and is poisoned by eating pepper. The species is subdivided into the following varieties.

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α. Wild Hog.—1. α. *S. Scrofa ferus*.

The ears are short, and somewhat rounded. Briss. regn. an. 75.

Υς ἀγρῖος. Arist. hist. an. i. c. 2.—Καπρῖος. D°. ii. c. 9. 11. v. c. 13. Oppian. cyneg. iii. 364.—Συς ἀγρῖος. Aelian. an. v. c. 45.—Sus ferus. Plin. hist. nat. viii. c. 51.—Sus. Charlet. exerc. 13.—Sus agrestus, Aper, Wild-boar. Raj. quad. 96.—Porcus. Plin. hist. nat. xviii. c. 35. Jonst. quad. t. 48. Klein, quad. 25.—Aper. Gefn. quad. 1039. f. p. 1040. Schwenkf. ther. 54. Aldrov. bif. 1013. f. p. 1025. Jonst. quad. 105. t. 47. 48.—Wieprz-lesny, Dzik. Rzacz. pol. 213.—Cochon sauvage, Maron, Sanglier. Des Marchais, voy. iii. 296.—Sanglier, Marcassin, Wild Boar. Sm. Buff. iii. 500. pl. xx. xxiii. f. 1.—Wild Hog. Brown, jamaic. 487. Penn. hist. of quad. n. 61. A.—Wild Schwein. Gefn. thierb. 336. Ridinger, jagd. th. t. 6.

The Wild Hog, or, as it is usually called, Wild Boar, inhabits the South of Europe, the north of Persia, Japan, Asia from Syria as far as lake Baikal, the coast of Barbary, India, Ceylon, Java, and the other Indian islands.—It is generally of a dark brindled colour, and somewhat hoary, having soft, short, curled hair beneath or between the bristles; the young ones have several longitudinal streaks, of yellowish and dark brown alternately, from the rump to the back of the head along the back and sides. This animal, though very slothful, drowsy, and stupid, is very swift, and extremely fierce; the females usually litter in May or June. In the Wild Hog, the snout and tusks are considerably longer than in the domestic varieties; and it is not so apt to become fat, especially on the bowels, where the fat is called *lard*.

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β. Domestic Hog.—1. β. α. *S. Scrofa domesticus*.

Has long, pointed, slouching ears. Briss. quad. 74.

'*γ*. Arist. hist. an. ii. c. 5. 7. v. c. 13. vi. c. 8. 28. viii. c. 9. Ael. an. iii. c. 3. x. c. 16.—Sus, Verres, Scrofa. Plin. hist. nat. viii. c. 51. x. c. 63. 73. xi. c. 37. 39. Gefn. quad. 982. f. p. 983. Schwenkf. ther. 123. Aldrov. bif. 937. f. p. 1006. Jonst. quad. 99. t. 47. Sibb. Scot. an. 9.—Sus, Porcus domesticus. Raj. quad. 92. Sloan, jam. ii. 328.—Cochon, Verrat, Cochon de lait, or Hog, Boar, Sow, and Pig. Sm. Buff. iii. 500. pl. xxii. xxiii. f. 2.—Schwein. Gefn. thierb. 331.—Common domestic Hog. Penn. hist. of quad. n. 61. B. BRIT. ZOO. i. 41.

The Common domestic Hog is cultivated almost all over the world, and varies exceedingly in size and colour; there are now vast droves of them, which have become wild, in the forests of South America, derived from the European breeds which have been transported to that country. The domestic Hog is usually of a whitish colour, frequently spotted with black or brown, and often entirely yellowish, brown, reddish, ash coloured, or black. It is larger in the temperate regions, and smaller in the hotter parts of the earth, and in those which are very cold; in Tartary it is very large, and of a silvery colour. The ears are longer than in the Wild Hog, sharp pointed, and flouch much forwards.

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γ. Single-hoofed Hog.—1. *β*. b. *S. Scrofa dom. monungulus*.

Has undivided hoofs on all the feet.

Arist. hist. an. ii. c. 7. Plin. hist. nat. xi. c. 43. Penn. hist. of quad. n. 61. *δ*.

This variety resembles the common domestic kind in every thing except the solid hoofs; it is found about Upsal in Sweden, and in other parts of the world, and is even mentioned by the ancients.

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δ. Chinese Hog.—1. *β*. c. *S. Scrofa dom. sinensis*.

The back is almost naked, and the belly hangs down almost to the ground.

Sus chinensis. It. Wyoth. 62. It. scan. 72. Briff. quad. 75.—Chinese hog. Penn. hist. of quad. n. 61. *γ*. Forrest, voy. 39.—Javan hog. Kolben, cape. i. 117.

This variety is common in China, in the islands of the Indian Ocean and South Seas, and is found wild in great numbers in New Guinea; it is also now frequently cultivated in several parts of Europe.—It is considerably smaller than the common kind, and is usually of a mixed black and white colour, or black with a slight hoariness; the legs are short, the tail is very short and pendulous, the belly hangs down so much as almost to touch the ground: The animal is considerably more cleanly than the ordinary Hog; its flesh likewise is reckoned whiter and more savory.

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2. Guinea Hog.—2. *β*. *S. Porcus*. 2.

Has no bristles; the hinder part of the back is covered with long hairs; the tail hangs down to the ground. Briff. regn. an. 109. n. 4.

Porcus guineensis. Marcgr. bras. 230. Jonst. quad. t. 46. Raj. quad. 96. Klein, quad. 26.—Guinea hog. Sm. Buff. viii. 239. Brown, jam. 487. Penn. hist. of quad. n. 61. *α*.

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β. Siam Hog.—2. *β*. *S. Porcus siamensis*.

The ears are erect and somewhat pointed, and the tail almost reaches the ground.

Sm. Buff. iii. 500. pl. xxi. Penn. hist. of quad. n. 61. *β*.

These

These two animals seem only to be varieties of the Common domestic Hog: The former inhabits Guinea, from whence it has been transported to Brasil; the latter is found in the kingdom of Siam.—Both are smaller than the Common Hog, and the head is less in proportion; the tail is very long and naked; the ears are longish and much pointed; the body is covered with short and shining red hairs, which are longer on the buttocks and about the head.—Dr Gmelin adds to the character of the former variety that it has a kind of bag on the navel; but, as that circumstance is not mentioned by the authors he has quoted, it is here omitted.—T.

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3. Pecary.—3. *Sus Tajassu*. 3.

Has no tail: On the hinder part of the back is an open glandular orifice, which discharges a fetid unctuous liquid.

Aper mexicanus. Briff. quad. iii. n. 6.—Tajaçu, *Sus minor*, Cochon noir. Barrere, Fr. eq. 161.—*Porcus mexicanus*. Charlet. ex. 14. Seb. mus. i. t. 111. f. 4.—*Porcus moschiferus*. Klein. quad. 25.—*Sus umbilico in dorso*. Aldrov. bif. 939.—Quauhualt, Quauhioyamatl. Fernand. an. 8.—Quauhtla, Coymatl, Quapizotl, Chuchie, Coscui. Hernand. mex. 637.—Tajassoub, Sanglier. Thevet, cosmogr. ii. 936. b.—Zainus, Saino, Zaino. Nieremb. hist. nat. 170. Jonst. quad. 107. t. 46. Mus. worm. 340.—Tajaçu, Caaigoara. Marcgr. bras. 229. Piso, ind. 98. Tyson, phil. trans. n. 153. p. 359. Raj. quad. 97.—Javari, Paquire, Paquirá. Rochefort, ant. 138. Gumill. orin. i. 293.—Pingo. Fermin, furin. ii. 79.—Pecary, Tajaçu, or Mexican hog. Sm. Buff. 271. pl. cxxxii. cxxxiii. Wafer, voy. 222. Des Marchais, voy. iii. 296. Bancr. guian. 125.—Mexican hog. Penn. hist. of quad. n. 64.

Inhabits the warmest parts of America, and in some of the West India islands.—It lives in considerable flocks among the woody hills, and is very fierce, yet easily tamed; it does not wallow in mire like the Common Hog, neither does it become so fat: It feeds on fruits, roots, serpents, and reptiles. The flesh is extremely good if the gland on the back be cut out immediately after death, otherwise the fetid ichor soon taints the whole carcass with an intolerable odour. In general figure this animal resembles the Chinese Hog, already described, and is about three feet long. The ears are short, erect, and pointed; the eyes are rather sunk; the neck is thick and short; the bristles are almost as thick as the spines of a Hedge-hog, of a hoary black colour, and surrounded with several whitish rings; they are longest on the back and ridge of the neck, being almost five inches in length, on the sides they are shorter, and the belly is almost naked; from the shoulders to the breast is a band or collar of white, which is interrupted on the back; the open gland is situated almost at the rump, on the top of the back, and continually discharges a stinking unctuous ichory fluid, which, when dry, has the flavour of castor. The voice resembles the grunting of the Common Hog, but is stronger and harder, especially when angry. The tusks of the upper jaw scarcely project when the mouth is shut, and those of the lower jaw are entirely covered.

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β. Lesser Pecary.—*Sus Tajassu minor*.

Is a good deal smaller than the former, and of a reddish colour. Sm. Buff. v. 277.

Inhabits Guiana.—The Count de Buffon, on the authority of Mr de la Borde, describes two species or varieties of the Pecary, as inhabiting Guiana, in South America; the larger, which is the Pecary already described, is black, with white hair on its chops, and weighs about a hundred pounds;

the

the smaller, which is the one now in question, is of a reddish colour and weighs sixty pounds. Both, it would appear, have the dorsal gland, and agree much in manners, but the smaller variety is said to be fiercer than the other.

781 γ. Patira.—*Sus Tajassu Patira*.

Resembles the former, but has a white line along the spine. Sm. Buff. v. 278.

Inhabits Guiana.—This variety is likewise introduced on the authority of M. de la Borde; it is of the same size with the Lesser Pecary, and has a white line along the spine from the neck to the tail; it lives in the forests, not in large herds, but in single families; takes refuge when pursued in hollow trees, and in holes of the earth, and defends itself with great courage against dogs. This animal frequents the marshes, is easily tamed when taken young, but always shews a great antipathy to dogs; the female brings only two young ones at a birth; the flesh is reckoned excellent; and the hair is softer than that of a Common Hog. The proper marks of distinction between these three varieties are not ascertained.

782 4. African Hog.—4. *Sus africanus*. 6.

Has only two fore-teeth in the upper jaw.

Cape-verd hog. Penn. hist. of quad. n. 63. Sm. Buff. viii. 241. Lev. mus.

Inhabits Africa, from Cape Verd to the Cape of Good Hope.—The body of this animal is covered with very long and fine bristles, especially about the shoulders, belly, and thighs, where they are of great length; the tail reaches to the first joint of the hind leg, is very slender, and terminates in a large tuft; the head is long shaped, with a slender nose, the upper jaw extending far beyond the lower; the ears are narrow, erect, pointed, and tufted with very long bristles at the end: There are only two fore-teeth in the upper, and six in the lower jaw; the tusks are large and very hard, like ivory, those of the upper jaw being very thick, and having the appearance of being cut off obliquely; on each side of each jaw there are six grinders, the most advanced being very large. Mr. Pennant supposes this species to be the animal mentioned by Adanson as a Boar of enormous size, peculiar to Africa.

783 5. Engallo.—5. *Sus aethiopicus*. 4.

Has no fore-teeth: On each cheek, below the eyes, there is a soft wrinkled hollow, from the under edge of which hangs a large pendent wattle.

Aper aethiopicus, Hartlooper. Pall. misc. zool. 16. t. 2. Spic. zool. ii. 3. t. 1. xi. 84. t. 5. f. 7.—Engalla. Meroll. cong. 667. Sorrento, voy. in Church. col. i. 667.—Emgalo, Engulo. Barbot, guin. 487.—Porc fanglier. Flacourt, madagasc. 151.—Sanglier hideux. Damp. voy. i. 405.—Ethiopian hog. Sm. Buff. viii. 241. pl. ccxc. Penn. hist. of quad. n. 62.—African wild boar. Deslandes, in Mart. mem. ac. v. 386. Lev. mus.

Inhabits Madagascar and the hotter parts of interior Africa.—This animal is very fierce, exceedingly swift, and more active, livelier, and more sagacious, than the Common Hog, with which it will not procreate; it is of considerable size, one, which was hardly full grown, measuring four feet nine inches in length; it has a strong, yet not disagreeable odour, resembling the *Lanium purpureum*, and compared by Vosmaer to new cheese. The body is thick, broad, and almost naked, having

a few blackish brown bristles disposed in little bundles; these are more numerous, and longer on the back, and more so between the ears and on the top of the neck, where they form a kind of mane. The head is very large, with a broad depressed muzzle, truncated obliquely inwards, so that the nostrils are not seen unless it be considerably raised; the extremity is very broad, and almost as hard as horn; the mouth is small, and instead of fore-teeth the gums are convex, smooth, and very hard; the under tusks are small, but those above are large and bent upwards out of the mouth; on each side of each jaw there are six grinders; the eyes are small, and are placed near each other, almost at the top of the forehead; immediately below each under eye-lid is a singular wrinkly hollow or sac, of soft, loose, black skin, from the under side of which hangs down on the cheek, a large, broad, flat lobe or wattle, rounded at the lower end; the ears are large, erected backwards, sharp pointed, and lined with long whitish hairs; the tail is slender, flat, covered with hairs disposed in parcels, and reaches only to the bottom of the thighs. This singularly hideous animal burrows under ground, and digs with surprising expedition: It is confounded by Buffon with the preceding species, though remarkably different from it by the singular structure below the eyes, and by the want of fore-teeth.

6. Babyroussa.—6. *Sus Babyroussa*. 5.

Has two crooked tusks, resembling horns, which pierce through the upper part of the face. Erxleb. mam. 188. n. 5.

Aper orientalis. Briff. quad. 110. n. 5.—*Υς τετρακεφαλός*. Aelian. an. xvii. c. 10.—*Aper indicus*. Plin. hist. nat. viii. c. 52.—*Aper cornutus*. Calpurn. eclog. 7. v. 58.—*Babi-raesa*. Seb. mus. i. 80. t. 50. f. 2.—*Porcus indicus*, *Babyroussa*, *Babyrussa*, *Babiroussa*, *Babi-roesa*. Raj. quad. 96. Klein; quad. 25. Bont. ind. 61. Jacob. mus. reg. 5. t. 2. f. 5. Laus. mus. t. 3. f. 28. Valent. amboin. iii. 268.—Strange hogs with horns. Purch. pilg. ii. 1695. v. 566.—Horned hog. Grew, mus. 27. t. 1.—*Babyroussa*. Penn. hist. of quad. n. 63. pl. xiv. f. 1. Sm. Buff. vii. 58. pl. cciii.—*Eberhirsch*, *Hirschbeber*. Knorr, del. ii. t. κ. 7.

Inhabits the islands of Java, Celebes, Buero near Amboina, and the other islands of the Indian Ocean.—The *Babyroussa* lives in herds, and feeds on herbs and leaves of trees, but never ravages the gardens and plantations like other swine; it has a very quick scent, and, when pursued, often takes to the water, where it swims and dives with great dexterity; in the forests it is said often to rest itself by suspending the weight of its head, by the crooked horn-like tusks, to the branches of trees. The head is long and narrow, with small, erect, sharp pointed ears, and small eyes; there are four fore-teeth in the upper, and six in the lower jaw, two tusks in each, and five grinders on each side of each jaw; the lower tusks stand near eight inches out of the mouth, pointing toward the eyes; the upper tusks are rooted downwards in sockets which open outwards on the top of the nose, so that they seem horns rather than teeth; they are about twelve inches long, are very much bent upwards, and recurved at the ends; the body is plump and square, having a few weak bristles along the back, but the rest is covered with a short woolly hair, of a grey colour mixed with red and black; the legs are long and slender; the tail is long, usually twisted, and ends in a tuft of hair. The flesh of this animal is reckoned very good.

N° 783



N° 805



N° 802



N° 796

D. Archer

VII. C E T E.

Have spiracles * on the anterior part of the skull; no feet, instead of which they have pectoral fins, destitute of nails; and the tail is horizontally flattened.

This order of Cete ought, from external shape and habits of life, to have been arranged with the class of Fishes; but the illustrious author having adopted the ingenious idea of employing the circumstance of suckling their young as a characteristic mark for a number of animals, all of which have warm red blood propelled by two auricles and two ventricles, found himself forced to include these, which ought otherwise to have been named Cetaceous Fishes. They are not hitherto well known, because living only in the sea, they are difficultly made the subject of observation; even those species of Whales and Cachalots which have long been killed in vast numbers annually, on account of the oil which they produce, are very imperfectly known to naturalists. In general they resemble fishes in the form of their bodies; all have pectoral fins, and a fin-like tail; a small number of species have a dorsal fin, but they are all destitute both of the ventral and anal fins †. They are found in almost every part of the ocean, and the seas which communicate with it, though some species are more peculiarly confined to particular regions, and very few are found in the Red Sea.

XLV. NARVAL.—44. *MONODON*. 37.

Has two very long, straight, and spirally twisted teeth, which stick out straight forwards from the upper jaw. The spiracle, or breathing hole, is situated on the anterior and upper part of the skull.

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1. Horned Narval.—1. *Monodon Monoceros*. 1.

The only species of this genus.

Monodon. Arted. gen. 78. syn. 108. Faun suec. 48. Mus. ad. fr. 1. 52. Muller, zool. dan. 6. n. 44.—Monoceros. Charlet. exerc. pisc. 47. Willoughby, pisc. 42. app. 12. t. A. f. 2. Raj. pisc.

Y y 2.

11.

* The word *spiracle* is employed to denote a kind of pipe, or fistulous opening, on the top of the head, communicating with the nose, through which the various species blow large quantities of water with great force, by the power of their breath, which likewise issues from the same openings, so that they may be considered as nostrils not situated on the nose or muzzle.—T.

† These fins will be described particularly in the class of Fishes.—T.

11.—*Unicornu marinum*. Mus. Worm. 282. 283.—Narhwal. Klein, misc. pisc. ii. 18. t. 2. f. c.—Eenhorn, Narhwal. Anderf. isl. 225. Crantz. groenl. 146. Mart. spitz. 94.—Eenhorning, Narhwal, Lioorne. Egede, groenl. 56.

Inhabits the northern part of the Atlantic Ocean.—This animal is represented by some authors as measuring from twenty to twenty-two feet in length, while others say that it reaches to forty, or even sixty feet long, and twelve feet broad; it is particularly noted for its horn or horns, as they are called, which are real teeth; of these there are always two in young animals, though the old ones have generally only one, sometimes none. In the specimen belonging to the Edinburgh Museum there is only one, which is placed rather on one side, and no vestige of a socket for the other; but then it is a general fact that sockets become obliterated after the teeth which grew from them are destroyed. From this circumstance of only one tooth being usually found, the animal has acquired the name of *Monodon*, *Unicorn Fish*, or *Sea Unicorn*. This extended tooth perforates the upper jaw, and is a very powerful weapon of offence; there are even many instances of the tooth having been found in the bottoms of ships which returned from the northern seas, probably owing to the Narval having mistaken the ship for a Whale, and attacked it with such fury as not to be able to get out the weapon from the wood. The head is small, with very minute eyes; the back has no fin, and the two fins on the breast are very small; the skin is white with black spots on the back, and has a great quantity of blubber underneath. The Narval swims with very great velocity, and, though by no means scarce in the seas about Greenland, is very seldom killed.

XLVI. W H A L E.—45. *B A L Æ N A*. 38.

Has no teeth, instead of which the upper jaw is provided with horny laminae, called *Whale-bone*. The spiracle has two openings on the top of the head.

1. Common Whale.—1. *Balaena Mysticetus*. 1.

The nostrils, on the fore part of the head, are much contorted, and the back has no fin.
Arted. gen. 76. Syn. 106. Faun. suec. 49.

786

α. Greenland Common Whale.—*B. Mysticetus groenlandica*.

Of a blackish colour on the back and white on the belly. Briff. regn. an. 347. n. 1.

Balaena groenlandica. Mus. ad. fr. i. 51. Gron. zooph. 139.—*B. major*, *B. bipinnis* Sibbaldi, et *B. vulgaris edentula*. Raj. pisc. 16. et 6.—*B. vera*. Klein, misc. pisc. ii. 11. Willoughb. pisc. 38. 35.—*B. vulgaris*, *Musculus*. Rondel. pisc. 475.—*B. vulgaris*, *Mysticetus Aristotelis*, *Musculus Plinii*. Gefn. aqu. 132.—*B. vulgaris*. Charlet. ex. pisc. 46.—*B. vulgi*. Mus. worm. 281. Jonst. pisc. 216. Aldrov. pisc. 688.—*Balaena*. Plin. hist. nat. ix. c. 6. 7. 13. Schonev. ichth. 24. Aldrov. pisc. 675. f. p. 677. 682. Sibb. Scot. an. 23.—Φαλαίνα. Arist. hist. an. i. c. 5. iii. c. 16. Aelian. an. v. c. 4.—*Μυστιζατος*. Arist. hist. an. iii. c. 10.—*Hvalfisk*. Egede, groenl. f. p. 48.—*Wallfish*. Mart. spitzb. 98. t. Q. f. a. b.—*Groenlandische Wallfish*. Anderf. isl. 212. Crantz, groenl. 141.—*Common Whale*. Penn. Brit. zool. iii. n. 16. Arct. zool. sup. 101. n. 51.—*Whalebone Whale*. Dudley, phil. transf. abr. vii. 424.

787

β. Iceland Common Whale.—1. β. B. Mysticetus islandica.

Of a black colour with a whitish gloss. Briss. regn. an. 350. n. 2.

Nord-kapper. Egede, groenl. 53. Anderf. isl. 219. Crantz. groenl. 145.

788

γ. Larger Common Whale.—1. γ. B. Mysticetus major.

Has no spiracle. Raj. pisc. 16.

Inhabits the Arctic Seas, especially about Greenland and Spitzbergen.—The Common Whale is of enormous bulk, measuring from fifty or sixty, to seventy, eighty, and even an hundred feet long; it swims with immense velocity, but, notwithstanding its vast size, having no weapons either of defence or offence, it is exceedingly shy and timid. It lives chiefly on the Cancer pedatus, and oculatus, Argonauta arctica, and Clio bitentaculata; the second, or Iceland, variety, which is smaller and more slender than the Greenland kind, feeds on Medusae and Clupeae *: It is probable that the description of the third variety, or Larger Common Whale, as being without any spiracle, which is admitted by the celebrated Ray on the authority of Sibbald, is either totally erroneous, or founded on mistake, as it differs so completely, not only from the general analogy of the Whale genus, but from the whole cetaceous order. The female Whale has two proportionally small paps situated on the abdomen, near the vagina, which she has the power of retracting; she is supposed to go nine or ten months with young, and produces mostly one, seldom two, at a time, which she suckles and takes care of with great affection. The flesh of the Whale is extremely dry and insipid, except about the tail, which is more juicy, yet still very tasteless; between the skin and flesh the whole body is surrounded with a vast layer of fat or blubber, of which seventy or eighty butts, or large barrels, are sometimes procured from one Whale; they are hunted with great attention, on account of this blubber, for the sake of a coarse oil which is extracted from it, and it appears that this trade was considerable even in the time of Isidore and Vincentius; it is mentioned as common and very profitable on the French coast by Brito, a poet of the twelfth century. The horny laminae, which are found in the upper jaw of the Whale, are likewise a valuable article of commerce, under the name of *Whale-bone*; these, from frequent use, serving to catch the food of the animal, are split at the margin and the extremity into long, thick bristles; there are about seven hundred laminae of this substance in the mouth of each individual, and, when the animal is full grown, the middle lamina, which is the longest, measures from eighteen to twenty feet long.

The head of the Common Whale is nearly one third part of the animal, being flattish on the upper part, and surmounted by a tubercle or projection, in which the spiracle, or breathing pipe, is situated; the mouth is very large, and stretches far backwards, almost as far as the eyes, in form of the letter *f*; the lower jaw, especially about the middle, is very broad; the tongue is very soft, being composed almost entirely of fat; it is of a white colour, spotted with black at the sides, and adheres by its under surface to the lower jaw; the eyes are placed at a great distance from each other on the sides of the head, over the entrance to the ears, and are very little larger than those of an Ox; the skin is about an inch thick, and the scarf skin about the thickness of parchment; this last is very smooth, seldom entirely black, or variegated with black and yellow, and very rarely of a white colour.

* All these animals, belonging to the succeeding classes, will be hereafter particularly described in the course of this work.—T.

four. The tail is horizontally flattened and slightly divided into two lobes, from the middle of which a short, and somewhat sharp, angular ridge runs up the middle of the back, but without any proper dorsal fin.

789

2. Fin Whale.—2. *Balaena Physalis*. 2.

Has a double opening to the spiracle on the middle of the fore part of the head; and a soft fin on the hinder part of the back. Art. gen. 77. fyn. 107. Faun. suec. 50.

Balaena, having three fins, and a smooth belly. Briff. 352. n. 5.—*Balaena*, without teeth, having a narrow body and a fin on the back. Raj. pisc. 9. Klein, misc. pisc. 13.—*Physalus bellua*, *Phyfeter*. Gefn. aqu. 851.—*Phyfeter*. Plin. hist. nat. ix. c. 4. xxxii. c. 11. Jonst. pisc. 217. Charlet. ex. pisc. 47. Sibb. SCOT. an. 23. Willoughb. pisc. 41.—*Finne-fiske*. Egede, groenl. 48.—*Finnfisc*. Mart. spitzb. 125. t. Q. f. c. Anderf. isl. 219. Crantz. groenl. 145.—*Fin Whale*. Penn. arct. zool. sup. 101. n. 53.—*Fin-fish*. BRIT. ZOO. iii. n. 18.—*Fin-backed Whale*. Dudley, phil. transf. abr. vii. 425.

Inhabits the Atlantic, both on the American and European coasts.—This species is equally long with the Common Whale, but not above a third, or even fourth, part of the circumference, and produces vastly less blubber; the opening of the mouth is larger; the horny laminae, or Whale-bone, are shorter, and of a bluish colour; the flesh is better tasted; and it throws the water from the spiracles with greater force. The upper part of the body of this animal is of a clear brown colour, and the lower parts white; the lips are brown and resemble a twisted rope; on the lower part of the back, near the tail, there is a straight, soft, sharp pointed fin, between three and four feet long, without rays or bones, from which circumstance the English name of the species, to distinguish it from the Common Whale having no back-fin, is derived. From the violence with which this species throws out the water from its spiracle, it is supposed to be the *Φυσάλος* of the ancients. This species feeds on small fishes of the *Clupea*, *Scomber*, and other genera: It is neglected by the Whale fishers, both on account of its great fierceness and the small quantity of blubber which it affords; even its appearance in the Whale seas is disliked, as it is supposed to drive away the common species, which is so much in request.

790

3. Scrag Whale.—3. *Balaena Boops*. 3.

Has a double pipe on the snout, and a horny protuberance on the extremity of the back. Art. gen. 77. fyn. 107.

Balaena, having three fins, a sharp snout, and the belly longitudinally wrinkled. Briff. regn. an. 355. n. 7.—*Balaena*, having three fins, a sharp snout furnished with nostrils, and several folds of the skin on the belly. Raj. pisc. 16.—*Jubartes*. Klein, misc. pisc. ii. 13.—*Jupiter fisch*. Anderf. isl. 220. Crantz. groenl. 146.—*Pike-headed Whale*. Penn. BRIT. ZOO. iii. n. 17. Arct. zool. sup. 101. n. 52.—*Scrag Whale*. Dudley, phil. transf. abr. vii. 425. Sibb. SCOT. an. 23.

Inhabits both the northern and southern oceans.—This species is about forty-six feet long, and twenty feet in circumference, at the thickest part, where the breast fins are placed. The upper parts of the body are black and very smooth; the under parts are white, and have the skin raised into many longitudinal folds; the head is oblong, with a somewhat sharp snout; the tongue resembles that of an Ox in figure, and is near five feet long; the eyes are not larger than those of an Ox, and are placed near the corners of the mouth.

4. Humped Whale.—4. *Balaena gibbosa*. 5.

Has no back fin, but the back is hunched.

Hump Whale. Penn. arct. zool. sup. 102. n. 54.—Hump-back Whale. Dudley, phil. transf. abr. vii. 425.

791

 α . Single-humped Whale.—5. β . *B. gib. gibbo unico*.

Has one hunch on the lower extremity of the back.

Balaena Novae-angliae, having two fins and a single hunch on the back. Briff. regn. an. 351. n. 3.—*Balaena*, with one hunch on the back near the tail. Klein, misc. pisc. ii. 12.—Pflokfisch. Anderf. isl. 224. Crantz, groenl. 146.

Inhabits the seas near the coast of New England, in North America.—The hump on the lower part of the back is described as exceeding the size of a man's head.

792

 β . Six-humped Whale.—5. α . *B. gib. gibbis sex*.

Has six humps on the back.

Balaena, having two breast fins, and six hunches on the back. Briff. regn. an. 351. n. 4. Erxl. mam. 610. n. 5.—*Balaena macra*. Klein, misc. pisc. ii. 13.—Knotenfish, Knobbelfisch. Anderf. isl. 225. Crantz, groenl. 146.

This variety resembles the Common Whale, except in having six large knobs or hunches along the back, and the horny scales in its mouth are of a white colour. We have no account of any other circumstances in its description, manners, or food; nor of the seas which it frequents.

793

5. Broad-nosed Whale.—5. *Balaena Musculus*. 4.

Has a double pipe on the fore-head, and a very broad under jaw. Art. gen. 78. syn. 107 fp. 106.

Balaena, with three fins, a round snout, and wrinkled belly. Raj. syn. pisc. 17. Sibb. Scot. an. 24. Briff. regn. an. 353. n. 6.—Φαλένα, *Balaena*, *Balena*, *Balein*, *Capidolio*. Bellon, aquat. 4. 6. Aldrov. pisc. 676.

Inhabits the Scottish seas.—This species is sometimes seventy-eight feet long, and above thirty-five in circumference; the lower jaw is semicircularly turned at its extremity, and is much broader than the upper jaw, which ends in a sharp snout; the opening of the mouth is enormous, and contains a number of laminae of black Whale-bone, but the longest do not exceed three feet; the spiracle or blowing pipe is of a pyramidal form, divided into two orifices by a septum or partition, and is situated on the fore-head; the back is black, and furnished with a soft rayless fin; and the belly, which is white, has a number of folds of the skin. This Whale is very destructive to the herring shoals which visit the Scottish coast, and which, with proper exertion, might prove an immense source of wealth and industry to Britain; perhaps it may not be improper to mention, that, from long experience, the Norwegians are so thoroughly convinced of the benefits derived to their fisheries, by the Whales driving the fish into the creeks and firths on their coast, that they are protected by the law, under very severe penalties.

6. Beaked Whale.—6. *Balaena rostrata*. 6.

Has a soft fin on the back, and the nose is peaked.

Balaena rostrata minor. Muller, zool. dan. 7. n. 48. Chemnitz, beschr. naturf. berl. iv. 183. Klein, misc. pisc. ii. 13.—Beaked Whale. Penn. BRIT. ZOOLOG. iii. n. 20. Arct. zool. sup. 102. n. 55.—Bottle-nose Whale. Catesby, app. 32.

Inhabits the Norwegian seas.—This species has a considerable resemblance to the Scrag Whale, especially in the form of the snout; but, according to Chemnitz, it has no Whale-bone in the mouth, which has one tooth on each side of the upper jaw, from which circumstances it more properly belongs to the succeeding genus, though in that the teeth are placed in the lower jaw. It is of a very clear black colour, and about twenty-five feet long; swims with amazing velocity, and appears to have a very acute sight; the lower jaw is considerably thicker than the upper, and the snout is very long and sharp.

XLVII. CACHALOT.—46. *PHYSETER*. 39.

Has teeth in the lower, and none in the upper jaw.

1. Lesser Cachalot.—1. *Physeter Catodon*. 1.

Has no fin on the back; the blowing pipe is situated on the snout. Art. gen. 78. syn. 108.

Cetus minor, having two fins, and the pipe on the snout. Briss. regn. an. 361. n. 4.—*Balaena minor*, having teeth in the lower jaw, without any fin or spine on the back. Raj. pisc. 15. Sibb. Scot. an. 24.

Inhabits the northern Atlantic.—This species differs from the Scrag Whale by wanting the horny excrescence on the back, and in having teeth in the lower jaw, but like it the spiracle or pipe is placed on the snout, like nostrils; it is about twenty-four feet long, and has a round shaped head, with a small opening, or rictus, of the mouth.

2. Blunt-nosed Cachalot.—2. *Physeter macrocephalus*. 2.

Has no fin on the back; the blowing pipe is situated on the nape of the neck.

Catodon, with the pipe on the neck. Art. gen. 78. syn. 108.—Blunt-headed Cachalot. Penn. BRIT. ZOOLOG. iii. n. 21. Arct. zool. sup. 102. n. 57.—Spermaceti Whale. Dudley, phil. trans. abr. vii. 426.

α. Black Blunt-nosed Cachalot.—2. α. *Ph. macrocephalus niger*.

Of a black colour, with a hump on the back.

Cetus, having two fins, of a black colour on the back, and whitish on the belly, with the spiracle on the neck. Briss. regn. an. 357. n. 1.—Cete, named Pot-Walfish, by the Hollanders, and *Balaena major macrocephala*, having teeth only in the lower jaw. Raj. pisc. ii. and 15.—*Balaena*. Jonst. pisc. 215. t. 41. 42. Willoughb. pisc. 41. t. A. 1. f. 3.—Cete admirabile. Clus. exot. 131.—*Cetus dentatus*. Mus. worm. 280. Charlet. ex. pisc. 4. Sibb. Scot. an. 23.—Cachalot. Klein, misc.

misc. pisc. ii. 14. Egedè, groenl. 54. Anderf. isl. 232. Crantz, groenl. 148.—Spermaceti Whale. Brown, jam. 459.

797 β . White Blunt-nosed Cachalot.—2. β . *Pb. macrocephalus albicans*.

Of a whitish colour, with a smooth back.

Balaena albicans, Weifs fisch. Klein, misc. pisc. ii. 12.—Cetus albicans. Brissl. regn. an. 359. n. 2.—Cetus albus. Raj. pisc. 11.—Hvid fisch, Poisson blanc. Egedè, groenl. 55.—Weifs fisch. Mart. spitzb. 94.

798 γ . Grey Blunt-nosed Cachalot.—2. γ . *Pb. macrocephalus cinereus*.

Of a blackish ash colour, with a hump on the back.

Cetus Novae-angliae, having two fins, the pipe on the neck, and a hump on the back. Brissl. regn. an. 360. n. 3.—Balaena Dudleji. Klein, misc. pisc. ii. 15.

The black variety of this species is found in the European seas, the White in Davises Straits, and the Grey on the coasts of New England.—The black variety grows to above sixty feet long, and thirty-six feet in circumference; the head is exceedingly thick, and the lower jaw, which is smaller than the upper, has forty-six teeth, in two rows, which rise between two and three inches above the gums, and are received into an equal number of hollows, or sockets, in the upper jaw, when the mouth is shut; the female teats are retractile. The substance improperly named *spermaceti* is procured from this animal, being contained in particular cavities of the bones of the head, which are covered with the common integuments or skin; and from this variety, or another of the same species, the finer Whale oil, called *spermaceti oil*, or *white oil*, is extracted; hence it is found in the southern seas along the coasts of Brasil, Patagonia, and in the Pacific Ocean, in which places a very extensive fishery is now carried on from Britain. According to Dr Schwediauer, Phil. Transf. 1783, P. i. n. 15. the perfume called *ambergrease* is the hardened faeces, or scybala, ejected from this animal when sick, large quantities having been found in its intestines. The same gentleman informs us, that it feeds chiefly on the Eight-legged Cuttle-fish, or *Sepia octopodia*.

The white variety resembles the Common Whale, but has the head of a sharper form; it is about fifteen or sixteen feet long, and of a yellowish white colour: The teeth are compressed, somewhat crooked inwards, and rounded at the ends.

The grey variety grows to sixty, and even seventy, feet long, by thirty or forty in circumference; has a very large head, with very small eyes; the lower jaw is much narrower than the upper, and is furnished with a considerable number of teeth, which are received into sockets of the upper jaw when the mouth is shut. This variety agrees with the first in having a hump on the back, which rises about a foot above the general surface.

3. Sharp nosed Cachalot.—3. *Physeter microps*. 3.

Has a long fin on the back, and the upper jaw is longer than the under. Art. gen. 74. syn. 104.

799 α . Hook-toothed Sharp-nosed Cachalot.—3. α . *Pb. micr. falcidentatus*.

The teeth are sharp, and considerably bent.

Cetus, having three fins, with sharp, arched, and hooked teeth. Briff. regn. an. 363. n. 6.—*Balaena major*, having a fin or spine on the back, and teeth, which are hook-shaped, in the under jaw. Raj. pisc. 15. Sibb. Scot. an. 24. Klein, pisc. ii. 15.—Dritte Cachelotte. Anderf. ill. 248.

800 β. Straight-toothed Sharp-nosed Cachalot.—3. β. *Ph. micr. rectidentatus*.

The teeth are sharp and straight.

Cetus, having three fins, with sharp straight teeth. Briff. regn. an. 362. n. 9.—Zweyte Cachelotte. Anderf. ill. 246.

Inhabits the northern Ocean.—The head of this species is enormously large, with very small eyes; the lower jaw is armed with a number of teeth, which, when the mouth is shut, are received into an equal number of sockets in the upper jaw; the skin is very smooth.

The former variety is of a blackish brown colour, and grows to seventy feet long; it has forty-two round teeth, which are a little compressed sideways, thicker in the middle, and bent in form of a hook; the blowing pipe is placed a little farther forwards than the middle of the snout; the back fin is longish and sharp pointed, so as to have the appearance of a spine. This animal sometimes chafes the Seals with such eagerness as to run itself on shore.

The latter variety is of a blackish colour on the back, and whitish on the belly, having a very high hump on the upper part of the back, and the back fin is placed very near the tail; the head is almost half the length of the body, having very bright yellowish eyes; the tongue is small and sharp pointed; the teeth are thick, straight, and sharp at the points, and set in the jaw like the teeth of a saw. This animal sometimes grows to eighty, or even an hundred, feet long.

801 4. High-finned Cachalot.—4. *Phyfeter Turfio*. 4.

Has a very long fin on the back, and the ends of the teeth are flat. Art. gen. 74. syn. 104.

Cetus, having three fins, and the teeth flat at the ends. Briff. regn. an. 364. n. 7.—*Balaena macrocephala*, with three fins, and having teeth in the lower jaw, which are very little bent, and end in flat surfaces. Raj. pisc. 16. Sibb. Scot. an. 24. Klein, misc. pisc. ii. 15.

Inhabits the northern ocean.—This species sometimes grows to an hundred feet long; the back fin is very long, sharp pointed, and erect, so as to resemble the mast of a ship in some measure; the blowing pipe is placed on the fore-head; the teeth are slightly bent, and have their ends flattened: In other respects this animal has considerable resemblance to the preceding species.

XLVIII. DOLPHIN.—47. *DELPHINUS*. 40.

Has teeth in both jaws. The pipe is placed on the anterior and upper part of the head.

802 1. Porpoise.—1. *Delphinus Phocaena*. 1.

The body is of a somewhat conical form, with a broad back, and bluntish snout. Art. gen. 75. syn. 104. Faun. fusc. 51.

Delphinus

Delphinus phocaena. Briff. regn. an. 371. n. 2. Bloch, fisch. deutschl. ii. 119. t. 92.—Turpio. Plin. hist. nat. ix. c. 9. Bellon, aqu. 15. Rondel. pisc. 474. Schonev. ichth. 77. Klein, misc. pisc. ii. 26. t. 2. A. B. 3. B.—*Phocaena*, Turpio, Marfouin. Bellon, aqu. 16.—*Phocaena*. Rondel. pisc. 473. Gefn. aq. 837. Aldrov. pisc. 719. f. p. 720. Jonst. pisc. 221. t. 41. Charlet. ex. pisc. 48. Sibb. Scot. an. 23. Willoughby, pisc. 31. t. A. 1. f. 2. Raj. pisc. 13. Rzacz. pol. auct. 245. Klein, misc. pisc. i. 24.—Meerschwein, Tunin. Mart. spitzb. 92. Anderf. isl. 253. Crantz, groenl. 151.—Nifer, Marfouin. Egede, groenl. 60.—Delphin, Nifen. Gunner. act. nidrof. ii. 237. t. 4.—Porpoise. Penn. Brit. zool. iii. 25. Arct. zool. app. 102. n. 60.

Inhabits the European ocean and the Baltic.—The Porpoise is of a bluish black colour on the back, and white on the belly; the snout is bluntish; the eyes are very small, and the entrance to the auditory canal is placed very near them; between the eyes the semilunar orifice of the spiracle, or blowing pipe, is situated, with its horns standing forwards; each jaw contains forty-six small sharp pointed teeth; the penis issues from a narrow longitudinal opening near the navel, and directly under the situation of the back fin; and the anus is placed between that and the tail, which is somewhat divided into two lobes. The whole length of the animal varies from five to eight feet. This animal swarms in great numbers in some parts of the narrow seas, swimming in herds, sometimes in regular lines, very slowly, and tumbling in the water, at other times darting with vast velocity in an irregular manner: It feeds on fish and sometimes on seals.

803

β. White Porpoise.—*D. Phocaena albus*.

Of a white colour.

Moine de mer. Bomare, dict. d'hist. nat. voce Balein.

Inhabits the river St. Lawrence.—This variety has a loose plait of the skin behind the head, which the French in Canada suppose to have some resemblance to a monk's cowl.

804

γ. Brown Porpoise.—*D. Phocaena fuscus*.

Of a brown colour.

Pourfille. Bomare, dict. d'hist. nat. v. Balein.

Inhabits the river St. Lawrence.

805

2. True Dolphin.—2. *Delphinus Delphis*. 2.

The body is oblong and roundish, and the snout narrow and sharp pointed. Art. gen. 76. syn. 105. Briff. regn. an. 369. n. 1.

Δελφίς. Arist. hist. an. i. c. 5. ii. c. 9. iii. c. 1. 7. 16. iv. c. 9. 10. ix. c. 74. Aelian. an. i. c. 18. ii. c. 6. v. c. 6. viii. c. 3. x. c. 8. xi. c. 12. 22. xii. c. 6. 45.—*Delphinus*. Plin. hist. nat. ix. c. 7. 8. xi. c. 37. Bellon, aq. 7. f. p. 9. 10. Rondel. pisc. 459. Gefn. aq. 380 f. p. 381. Aldrov. pisc. 701. 703. 704. Jonst. pisc. 218. t. 43. Mus. worm. 288. Charlet. ex. pisc. 47. Willoughby. pisc. 28. t. A. 1. f. 1. Raj. pisc. 12. Rzacz. pol. auct. 238. Klein, misc. pisc. ii. 24. t. 3. f. A.—*Porcus marinus*. Sibb. Scot. an. 23.—*Delphin*. Anderf. isl. 254. Crantz, groenl. 152.

Inhabits the European and Pacific oceans.—This animal is black on the back and white on the belly; it is longer and more slender than the Porpoise, but greatly smaller than the Grampus, mea-

firing nine or ten feet in length by two in diameter; the snout is long, and somewhat sharp, with a broad transverse band, or projection of the skin, on its upper part; the opening of the mouth is very extensive, reaching almost to the thorax, and contains forty teeth, twenty-one above and nineteen below, which are above an inch long, conical at their upper ends, sharp pointed, a little bent inwards, and placed at some distance from each other, so that, when the mouth is shut, they lock into each other. The Dolphin swims with great velocity, and preys on fish; it is sometimes seen adhering to Whales, when they leap out of the water; it is naturally straight, and only assumes the crooked form, given by painters, when leaping.

806

3. Grampus.—3. *Delphinus Orca*. 3.

The nose is flat and turned upwards; the teeth are broad and serrated. Mantiss. mam. ii. 523. Faun. suec. 52. Art. gen. 76. syn. 106. Gun. act. nidros. iv. 110.

Delphinus Orca, having blunt teeth, and one fin on the back. Briss. regn. an. 373. n. 4.—*Balaena minor*, having teeth in both jaws. Sibb. Scot. an. 24. Raj. pisc. 15.—*Orca*. Plin. hist. nat. ix. c. 6. xxxii. c. 11. Belon. aq. 16. f. p. 18. Rondel. pisc. 483. Gesn. aq. 748. Schonev. ichth. 53. Aldrov. pisc. 697. f. p. 698. Jonst. pisc. 217. Charlet. exerc. pisc. 47. Willoughb. pisc. 40. Raj. pisc. 19. Klein, misc. pisc. ii. 22. t. 1. f. 1. Steller, Camtschatk. 104.—*Wagnhyalur*, Hualhund. Mus. worm. 279.—*Buts-kopf*. Mart. spitzb. 93. Anders. isl. 252. Crantz. groenl. 151.—*Buts-kopper*. Egede, groenl. 56.—*Grampus*. Penn. Brit. zool. iii. n. 26. Arct. zool. app. p. 102.—*Killer*. Catesby, app. 32. Dudley, in phil. trans. abr. vii. 428.

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β. Sword Grampus.—3. β. *D. Orca ensifidorsatus*.

The nose seems truncated; the teeth are sharp pointed; on the back is a very long, sword-like, spine, or bony fin. Briss. regn. an. 372. n. 3. Mull. zool. dan. 8. n. 57.

Schwerdt fish. Anders. isl. 255. Crantz. groenl. 152. Mart. spitzb. 94.—*Sword fish*. Catesby, app. 32.—*High-finned Cachalot*. Penn. Brit. zool. iii. n. 23. Arct. zool. app. p. 102.

Inhabits the European seas, the Atlantic, towards the Antarctic Pole, and Davies Straits.—This is the largest species of the genus, being twenty-four or twenty-five feet long, and from ten to thirteen feet in diameter, where thickest; it is black on the back, and white on the belly; the lower jaw is much larger than the upper, and forty blunt teeth are contained in both jaws, arranged at such distances as to receive each other into the intervals, when the jaws are shut; the nose is turned upwards; the eyes are very small; the spout-hole is on the top of the head, and has two orifices. The spine, or bony fin, on the back of the Sword Grampus, is often six feet long; it is broader at the base, and resembles a scymeter or bent sword, being, however, covered with the common skin of the back.

The Grampus is a bitter enemy to the Whales; great flocks of them attack the largest Whales, which they fasten round like so many Bull-dogs, making them roar with pain, and often kill and devour them. The Grampus likewise carries on a constant war against the Seals, which it pushes off from the rocks into the sea by means of its long back fin. They likewise feed on fish of the Flounder genus.

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4. Beluga.—4. *Delphinus leucas*. 4.

Has a blunt conical snout somewhat turned downwards; and no back fin. Pall. It. iii. 84. t. 4. Briss. regn. an. 374. n. 5.

Beluga.

Beluga. Penn. syn. of quad. 357. Arct. zool. i. 182. D^r. app. p. 103.—Bieluga. Stell. Camtsch. 106.—Witt fisch, Weiss fisch. Anderf. isl. 251. Crantz, groenl. 150.

Inhabits the seas near the Arctic Pole, and the river St. Lawrence.—This species forms a connection between the Cetaceous fishes and quadrupeds, through the genus of Walrus or Trichechus, having the general fish form and spout-hole of the former, while the pectoral fins have each the rudiments of five toes, the bones of which may be felt through the skin, and form five sensible projections outwardly. The Beluga lives mostly in families of five to ten together, in the gulphs or firths, at the mouths of large rivers, especially the St. Lawrence, the Oby, and the Dwina, going up generally as far as the tide reaches, at certain times of the year, when they are killed in great numbers, either by means of harpoons or strong nets, for the sake of their oil, and for their skins, of which a strong kind of leather, said to be musket proof, is manufactured. The skin is very smooth, slippery, and of a beautiful white colour; but, when young, it is dusky, and even blackish. The whole animal never exceeds eighteen feet long, is thicker in the middle, and grows narrower towards both ends. The head is small, and oblong, with very small eyes, which are rounded and prominent; the spout-hole is placed on the fore-head, and is divided into two, internally, near the palate, by a septum or partition; on each side of each jaw there are nine short bluntish teeth. The tail is cartilaginous, and is divided into two lobes; by bending this under its belly, like the tail of a lobster, it gives such springs, while swimming, as to go through the water almost with the velocity of an arrow. The females have two paps, which are at times found full of white milk. The male organ is about three inches long, and nearly the same in diameter, having neither cartilage nor bone in its substance like those of the other species of the order.

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THE
ANIMAL KINGDOM.

C L A S S II.

B I R D S.

VOL. I.

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C L A S S I I.

B I R D S.

The unshorn mountains, the barren rocks, and lowly shrubs, all raise their joyous songs to heaven.—VIRGIL.

BIRDS are animals which, for the most part, are capable of moving through the air, by the well known action which is called *flying*; their bodies are covered with feathers, which lap over each other like tiles; they have two wings, which are likewise covered with feathers, and are adapted, in general, for the purposes of flying; they have only two legs; and their jaws are protracted into a naked horny bill, consisting of two mandibles. The bodies of birds are exceedingly light in proportion to their size, when compared with the former class; they are clothed with quills and feathers, instead of hair; and are destitute of external ears, lips, scrotum, teeth, uterus, bladder, epiglottis, fornix, corpus callosum, and diaphragm. The feathers, *pennae*, are disposed in alternate rows, those of one row being opposite to the intervals of the next; this arrangement is called *quincunx*, and they regularly fall over each other in the same order, like tiles on a roof, *imbricatim*, each alternate row covering the intervals of the row immediately below; amid these, all over the body, short soft woolly downs, *plumae*, are interposed: All the feathers are convex on their upper, and concave on their under surfaces; their external edges, webs, or vanes, are narrow, and their inner vanes are broad; the rays or laminae of these vanes are softer and less connected together towards the base or shaft, and these, towards the outer end of the feathers, are firmer, more elastic, and more closely connected together; the shaft of each consists of a cylindrical hollow tube, or quill, filled with air, from which a firm, though very light, stem proceeds to the extremity of the feather, and from this the rays of the vanes stretch

out on each side in parallel rows close to each other; and these are double in water fowls which have pinnated feet.

The feathers of birds are gaily ornamented with colours, which are varied by difference of age, sex, season of the year, and climate; but on the quill-feathers of the wings, *remiges*, and of the tail, *rectrices*, these colours are more constant, and deserve an attentive consideration from the ornithologist, as being frequently the only distinctive marks of species *. A naked stripe of the skin runs down on each side of the neck, from the head, pointing towards the space, *interscapulum*, between the shoulders of the wings; and another similarly naked space on each side from what are called the Armpits, *axillae*, under the wings, along the sides of the breast, backwards almost to the groins and thighs.

All birds are oviparous, or produce eggs, which contain the rudiments of their young; the number of these is various in the different kinds, but they are always covered with a calcareous crust, or shell, and, after exclusion from the mother, they are, almost universally, deposited in artificially constructed nests, in which, by what is termed *incubation*, the parents sit on them, to keep them warm, till they are hatched.

The windpipe, *trachea*, is composed of cartilaginous rings, and is furnished with a great number of muscles; and in many birds the branches, or *branchiae*, of the windpipe are likewise surrounded with cartilaginous rings.

Through the whole body a number of air cells are interspersed, even in the bones; these cells are connected with the lungs, and may be filled or emptied at pleasure; they are of singular use for flight, by rendering their bodies lighter, in proportion to their bulk, and they assist in prolonging their songs: These cells are situated in the cellular membrane of the belly, under the wings, and in other places; and, except in the order of Anseres, and the genera of Coots and Snipes, they are chiefly distributed in the cavities of the bones, which are void of marrow; such as the bones of the thighs and wings, the breast-bone, ribs, rump-bones, shoulder blades, collar-bones, back-bone, and even sometimes in the bones of the skull and the lower jaw.

A bird, for the purposes of description, is distinguished into the Head, the Body, and the Limbs. The covering of the top of the head is called the *pileus*, or Cap, which is distinguished into the Front, *frons*, the Crown, *vertex*, and the Hind-head, *occiput*:

That

* Act. Stockholm. 1740, p. 370. t. i. f. 10. 11.

That part of the front which borders the base of the bill is called the Frontlet, *capistrum*; through this a naked line on each side runs from the bill to the eyes, which is called the Strap, *lorum*; the spaces immediately surrounding the eyes are named the Orbits, *orbitae*, immediately over which the Eye-brows, *supercilia*, are situated; the spaces from behind the eyes, to the auditory passages, on each side, are called the Temples, *tempora*; and the spaces below the eyes, towards the throat, are named the Cheeks, *genae*.

The Bill, *rostrum*, is a hard horny substance, answering to the jaws of other animals, and is divided into the upper and lower Mandibles. The Bill is either Straight, *rectum*, Bent downwards, *incurvatum*; Bent upwards, *recurvatum*; Round, *teres*; Flattened at the sides, *compressum*; Flattened horizontally, *depressum*; Conical, *conicum*; Slender, *subulatum*; Cylindrical, *cylindricum*; Angular, *angulatum*; Sharp edged, *cultratum*; Vaulted, *fornicatum*; or Hooked, *uncinatum*. The Mandibles are naked, and have no teeth; some are Notched, *emarginatum*, near the point; a few are Jagged, *ferratum*; Toothed, *denticulatum*, that is, having processes resembling teeth; Pectinated, *pectinatum*, or furrowed across on their inner surfaces. In general, the nostrils are situated in the bill, sometimes in the middle of the upper mandible, or near the point, or near the base, or at the base, or even behind the base, and are sometimes wanting externally; they are mostly naked, but are sometimes covered with reflected bristles, or are hid in feathers; their figure is Round, *retundae*; Oval, *ovatae*; Oblong, *oblongae*; Linear, *lineares*; Vaulted, *fornicatae*; or Tubular, *tubulosae*. The base of the upper mandible is, in some birds, covered with a naked skin, or membrane, called the Cere, *cera*; and the external margin of the mouth, at the angle of the two mandibles, is often fringed with Bristles, *vibrissae*.

The tongue is either Fleishy, *carnosa*; Cartilaginous, *cartilaginosa*; Notched, *emarginata*; Torn, *lacera*; Feathered, *pennacea*; Fringed, *ciliata*; Whole, *integra*; or Sharp-pointed, *acuta*.

The eyes are situated on the sides of the head, having moveable eyelids, *palpebrae*, and a *membrana nictitans*, below them; this is a kind of half transparent membrane, with which the eyes can be covered to keep off a strong glare of light without shutting the eyelids: The chrystalline lens is extremely moveable, being contained by small, black, conical, plaited supports: Instead of Eyebrows, some birds have a naked coloured line over each eye, and this, in a few species, is Warty, *carunculata*.

The

The orifices of the auditory canal are destitute of external ears; in Owls they are covered with valves of skin, and over these is a kind of external ear composed of long feathers.

A kind of beard, of hair or bristles, is found in some birds; in some it resembles moveable whiskers, and is situated on the lower mandible, as in the Motmot, *Momota*, and Penduline Titmouse, *Parus pendulinus*; in others it consists of bristles, *vibrissae*, which fringe the margin of the mandibles at the base, as in the Goat-sucker, *Caprimulgus*; while in the Common Turkey, *Meleagris gallopavo*, it is situated on the breast. The base of the bill is clothed with a reversed Head-stall or Frontlet, *Capistrum*, the hairs of which stand backwards in Crows, Pies, and Owls.

The Crest, *crista*, is a raised tuft of feathers which ornaments the Cap, *pileus*; and it is either situated on the Front, *frontalis*, on the Crown, *verticalis*, or on the Hind-head, *occipitalis*; in direction, it is Erect, *erecta*, Reflected, *reflexa*, or Shed, *deflexa*; in form, it is either Flattened laterally, *compressa*, or in bundles, *fasciculata*; and in its structure, it is either Scattered, *sparsa*, or Folding, *plicatilis*, being composed of feathers alternately lying different ways.

Naked Warts, *carunculae*, of a soft fleshy consistence, form ornaments, or appendages, to the head and neck, in several birds; these are either on the Front, Crown, Nape, Eyebrows, Throat, or Neck.

The Neck is long, somewhat erect, and round; immediately below the head, on the hind part, it is called the Nape, *nucha*; the rest of its hind part is named the Scrag, *Cervix*; immediately below the jaws, on the fore part, it is named the Chin, *gula*, and the rest of the fore part is called the Throat, *jugulum*.

The Trunk of the body is shaped like an egg, having the thickest end foremost; its upper part, from the neck to the rump, is the Back, *dorsum*, of which that part which lies between the wings may be named the Saddle, *interscapulium*; the Shoulders, *humeri*, are the first part of the wings which project forwards; the lower part of the body forwards is the Breast, *pectus*, having the Collar-bones, *claviculae*, joined together in a forked form; the Arm-pits, *axillae*, are the sides of the breast directly below the shoulders of the wings; the Flanks, *hypochondria*, are the posterior sides of the breast, and the sides of the belly; the Belly, *abdomen*, is the soft under part of the body from the end of the Breast-bone, *sternum*, to the Vent, *anus*; the Ventlet, *crissum*, is the under side of the Rump, *uropygium*, from the Vent to the Tail.

The

The extremities, in birds, are the Wings, *alae*, the Legs, *pedes*, and the Rump, *uropygium*, with the Tail, *cauda*. The Wings are flat, broad, extended, and composed of several divisions, which are articulated together by moveable joints, and are provided with strong muscles, for the purposes of flight: Their fore parts are clothed with feathers, called the Coverts, *tectrices*, which are distinguished into three orders; the Lesser coverts, *tectrices minores*, are placed on the upper and fore parts, immediately over the bones of the wings; the Greater coverts, *tectrices majores*, immediately below the former, extend downwards, covering the origin of the Quill-feathers, *remiges*, and are themselves covered at their origin by the Lesser coverts; the Under coverts, rising from the bones of the wings at the under and fore parts, cover their insides, and lie over the origin of the Quill-feathers on their inner or under side: The posterior part of the Wings are edged with the Quill-feathers, *remiges*, which expand into a broad fan, a little arched upwards, and by means of which the animals of this class are enabled to bear themselves through the air, in the action named *flying*. The Quill-feathers are usually distinguished into three orders; the Primaries, *primores*, are the outermost, and are, for the most part, ten in number; the Secondaries, *secundarii*, are placed in the middle, and are from ten to eighteen in number; and the Tertiaries, *tertiales*, are on the inside, of which there are from three to five. The Scapulars, or Shoulder-coverts, *scapulares*, consist of a tuft of longish feathers which arise from the root of the wings, *brachii*, near the junction with the body, and lie along the sides of the back, and over the base of the wings, when shut, connecting these together, but may be easily separated, and distinguished from the others. The Shield, *speculum*, is a shining coloured spot, a quadrilateral figure in general, mostly situated on the surface of the Coverts, *tectrices*, and sometimes, though rarely, on the Quill-feathers, *remiges*, of the wings; this is generally visible, particularly in Ducks, even when the wings are closed. The Bastard, or Spurious, wing, *alula notha s. spuria*, is a kind of appendage to the true or principal wing, placed near its outer extremity, at the base of the primary quill-feathers, and consists of from three to five small feathers of the quill kind. In a small number of species, which do not fly, as the Albatross, Penguin, Ostrich, and Dodo, the Quill-feathers are entirely wanting.

The wing is composed of many bones, which may be compared, in some measure, to those of the human arm and hand: *a.* A lengthened arm bone, *brachium*; *b.* Two lengthened bones of the fore arm, *cubiti*; *c.* Two short bones of the wrist, *carpi*; *d.* Two moderately long bones of the back of the hand, *metacarpi*, connected together; *e.* Two fingers, *digites*, of which the larger has two articulations, and is compressed, while the other is very small; *f.* A thumb bone, *pollex*, of a very small size, which arises from the
fore

fore part of the base of the metacarpal bones ; this last, in a few rare instances, ends in a spine, *spina*, as in the Ostrich, Screamer, some Plovers, the Jacana, and a few of the Duck tribe.

The hinder extremities of birds consist of the Thighs, Legs, Toes, and Claws. The Thighs, *femora*, are fleshy, and generally covered with feathers, except those of Bustards, Ostriches, and the order of Waders, *Grallae*, which are naked on the lower half; those of web-footed water fowls are likewise somewhat naked towards the knees, but in a less degree. In most birds the thighs are so placed as to support the weight of the body in exact equilibrium, except in web-footed water fowls, on which, for the convenience of swimming, they are placed much backwards, behind the center of gravity, which causes these birds to walk in a constrained manner : In the genera of Grebe, Auk, Guillemot, and Penguin, the thighs are concealed within the common integuments of the belly, so that in walking, which they do with great difficulty, their legs seem tied together ; this is called by ornithologists Fettered legs, *pedes compedes*. In some birds, as in the Coot, there is a coloured circle, sometimes two, or three, near the joint of the knee ; this is called the Bracelet, *armilla*. The Legs, *tibiae*, are thin, lean, and tendinous ; generally naked, being seldom clothed with down or feathers, and are sometimes covered with scales ; in a few species the back parts of the legs are armed with sharp horny spurs, *calcaria*, especially in males.

The Toes, *digiti*, vary in number, disposition, and some other circumstances, from which the feet get several appellations, of considerable use in distinguishing the orders and genera of birds. In general, they may be distinguished into such as have four toes, *tetradactyli*, in which, for the most part, three of the toes stand forwards, and one backwards ; and into three toed feet, *tridactyli*, which want the hind toe : The four-toed feet are subdivided into several kinds according to the disposition of the toes ; all land birds that perch on trees have three toes turned forwards, and one backwards, which may be termed Perching feet, *insidentes*, though ornithologists have usually called them *Pedes ambulatorii*, or Walking feet ; in some the toes are connected, two together, but without any interposed membrane, as in the King-fisher and others, in which case they are termed Walking feet, *gressorii* ; when two of the toes are turned forwards, and two backwards, they are called Climbing feet, *scanforii*, as in Parrots, Woodpeckers, and other birds which climb much ; Parrots have the power of occasionally turning one of these back toes forwards ; and Owls, whose feet are of the perching kind, can at pleasure render them climbers by turning back one of the fore toes : In some birds, as in the White-backed Coly, the Swift, and some others, all the four toes stand forwards, when

when they are called Clinging feet, *prehensiles*. When the feet have only three toes, all turned forwards, without any back toe, they are called Running feet, *cursorii*. Only one known species, the Ostrich, has but two toes, both of which stand forwards. A small number of birds have three toes, of which two stand forwards and one backwards; this is a kind of anomalous foot of the Perching division, and is named Tridactylous, *tridactyli*. In water birds, for the purposes of swimming, the toes have a membranous expansion at the sides, which is variously disposed, and gives occasion to several divisions, which are useful in system: In most swimmers, as in the Duck tribe, the toes are completely connected by an interposed membrane, when they are said to be Web-footed, *palmati*: Sometimes this membrane only connects the bases of the toes together, in which case the feet are termed Half-webbed, *semipalmati*: In others the toes are only edged with the membrane, without being connected together, when they are called Lobe-footed, *Lobati*: And lastly, in some the membrane only edges the toes at the joints, forming a kind of lobes, when they are called Fin-footed, *pinnati*.

The Claws, *ungues*, are mostly Sharp pointed, *acuti*; sometimes Hooked, *uncinati*; some are Blunt, *obtus*; others are Flattened, having projecting edges, *marginati*; a few are Toothed at the edges, *ferrati*; and a small number of birds have no claws, *mutici*.

The Tail, *cauda*, is composed of feathers, *rectrices*, of the pen or quill kind, which arise from the edges of the Rump, *uropygium*, and are covered at their bases by Tail coverts, *testrices*, both on the upper and under side of the rump; on the back, or upper surface, of the rump there are two glands which secrete an oily fluid, with which the birds anoint their feathers. The tail is said to be Short, *brachyura*, when it is shorter than the legs; and Long, *macroura*, when it exceeds these in length; it is called Even, *integra*, when the tail feathers are all of an equal length; Wedge-like, *cuneata*, when these are longest in the middle, and grow regularly shorter towards each side; Forked, *forficata*, when the middle tail feathers are the shortest, and those at the sides longer; and Rounded, *arcuata*, when the length increases towards the middle so as to form a regular segment of a circle.

In general, the tail consists of twelve pens or quill feathers, *rectrices*, which are thus distinguished;

1. 2. 3. 4. 5. 6.—6. 5. 4. 3. 2. 1.

that is, the two outer quills are named the first, on the right and left sides, and so on of the rest; in some there are more of these feathers, as far as eighteen; and in others fewer, in which last case there are usually ten.

Besides these enumerated particulars, there are a few circumstances which deserve notice, but are not common to the whole class. Spines, *spinae*, are a kind of offensive horny weapons, peculiar to some birds, with which they can fight their enemies; these are sometimes situated on the fore part of the wing, in the place of the thumb of hand-ed quadrupeds, as in the Ostrich, Jacana, Screamer, Spur-winged Plover, and some species of Ducks; at other times they are placed on the heels, when they are called Spurs, *calcaria*, as in the Peacock, Pheasant, and Grouse; in some species, as in the Screamers, and Horned Turkey, the spine is situated on the head, and is then named a Horn, *cornu*. Wattles, *palearia*, are fleshy membranes which hang down from the lower mandibles of the bills, as in the Wattle-bird, and Common Cock; and in the latter animal, a Crest or Comb, *crista*, of a similar fleshy substance, rises from the crown of the head. In the Ibis and Pelican, a Sac, *sacculus*, composed of a thin, tough, naked, and distensible membrane, hangs down from the lower mandibles, under the chin.

Most birds are monogamous, or live in pairs of one male and one female during the breeding season; in spring these choose their mates, after which they exert their joint industry in constructing their nests, and keep constantly together until the cares of incubation, and of rearing their young, are completed: Most of the Gallinaceous order, and of the Duck tribe, are polygamous, at least in the domesticated state; the males of these neglect their young, and in some cases would even destroy them if not carefully concealed by the females.

The nests of birds, which may be considered as serving the purposes of an uterus, are constructed with great care and wonderful artifice, though some have no nest, or hardly any; some of them are rudely constructed of sticks, but most are lined with soft materials; some are built on high inaccessible summits of rocks and mountains; others in caverns, shelves of the rocks, or burrows under ground; some on trees, in shrubs or bushes, or in the hollows of trees; some in ruined walls; some in bushes and hedges; some among long grass, or even on the bare ground. Of these nests some are built of clay, curiously knead and plastered, as those of Swallows; some are built with great ingenuity, so as to hang from the ends of the slender branches of trees; some are constructed to float on the surface of the water; some have very artful passages contrived to them; and some have many separate chambers communicating with each other.

The eggs of birds are very various in their numbers and appearance, though each species has an appropriate shape and colour, and generally keep to a fixed number, or
nearly

nearly so. The family of Auks lays only one egg for each hatching; the Divers two; Gulls three; the Crow four; Swallows from five to eight; Ducks, and the Gallinaceous birds, lay a great number.

As to place, some birds, as the Tropic-bird, only inhabit within the Tropics; some only within the Polar Circle, as the Fulmar Petrel; some in particular countries, as the Cape Petrel at the Cape of Good Hope; the Bird-of-paradise, and Peacocks, in India; the Ostrich in Africa; the Screamer, and Trumpeter, in America. Those without quills, *impennes*, and with fettered legs, *compedes*, and the Petrel genus, inhabit the ocean; the Divers are found mostly in lakes; the Merganser in rivers; the Water Ouzel about cataracts; Plovers near the sea shore; Snipes in marshes; the Bustard in champaign fields; the Shrike in the woods; Passerine birds among trees, bushes, and hedges; the Owl in rocky places; the Magpie and Swallow about villages; the Snow Bunting and others on the tops of mountains, &c. But all birds do not always continue in the same countries; great numbers perform regular migrations at particular seasons, quitting one part of the country for some other where their food is more plentiful, and returning again at another season to their original habitations; thus many birds which live in the northern frigid regions during the summer, migrate southwards before winter in quest of provisions, and return north again in spring or summer. This is done by most of the soft billed birds, *tenuirostres*, and Passerine birds, *passeres*, on account of the scarcity of insects, their ordinary food, in the cold season of these northern countries; the Grallae, or Waders, are forced to the same annual change of place, because the frost prevents them from searching for worms and amphibious animals in the mud; the Anserine birds, *anserres*, are in winter obliged to fly southwards, as the water being frozen hinders them from catching fish, &c. The long and warmer days of summer, which again bring with them plenty of food, recal these birds to their northern habitations on purpose to breed. A small number of birds, instead of migrating for food during winter, become torpid, and continue all the cold season in a state almost resembling death, during which they cease to feed, or to digest, and hardly breath, if at all; this state is called Hybernation, *hybernatio*.

The food of birds is various in the different kinds: Some are carnivorous; the Falcon tribe and Crows preys on quadrupeds, birds, and carcases of all kinds; the Anserine tribe lives on fishes; the Humming birds, and soft-billed Passerine birds, live chiefly on insects; the Raven on the larvae of insects, and on snails; the Cuckow on Lepidopterous insects; the Ani, Beefeater, Water Ouzel, and Swallows, on various kinds of insects; the Oyster-catcher on Conchs or shell fish; the Jabiru on Crabs, &c. Some

live on vegetable food, *phytophagae*; the Anserine tribe, besides fish, lives on various plants; the Parrots feed on fruit, &c.

The flight of birds is very various; most of the Falcon genus glide gently through the air, hardly moving their wings; most of the Pies fly quick, frequently flapping, or repeating the motion, of their wings; the Paradise-bird floats on the air; Woodpeckers fly by jerks, alternately sinking and rising in their progress; the Gallinaceous tribe fly strong and quickly, but soon come to the ground, owing to the size and weight of their bodies; Pigeons fly with vast swiftness; the Passerine tribe mostly fly by a quick repetition of strokes, and, except in migrating, seldom far at a time; the Swallow flies with vast velocity, continues long on the wing, and makes numerous and sudden evolutions, skimming through the air in quest of flies; many of the greater Waders have a slow and flagging flight, but the lesser fly swiftly, with their legs extended, for the most part, to make up for their want of tails; Rails and Gallinules fly with their legs hanging down; Coots and Grebes are with difficulty forced from the water, but fly swiftly when once risen; Grebes and Divers fly with their hind parts hanging much down, because their wings are placed far forwards on the body: Many of the web-footed birds, as Gulls, have a sailing or flagging flight; Wild-geese, in their migrations, fly in regular order, either in straight lines, or angular figures with the angle foremost, to assist in cutting the air, and the foremost bird drops behind when tired. Penguins, one species of Auk, the Dodo, Ostrich, Touyou, and Cassowary, are denied the use of flight altogether, their wings only serving in most to assist in running, in others to clamber up the shore when they land from the water, and to help them in swimming and diving.

The uses of birds in the economy of nature, and for the purposes of mankind, are various. The Falcon tribe destroy carcases, which would otherwise become noisome; the order of Pies, *picae*, devour noxious substances and worms; the Anserine tribe, *anseræ*, lessen the too numerous inhabitants of the water; the Waders, *grallæ*, seek for insects and worms from bogs and marshes; the Gallinaceous tribe, *gallinae*, pick up scattered feeds on the ground; the Passerine tribe, *passeræ*, feed on the seeds of shrubs and plants, and frequently carry these seeds, and the ova, or spawn, of fishes and insects to places where they were not originally found, and thus help to disseminate useful productions.

Birds are caught or killed, by means of bows and fire-arms; by falcons, and other rapacious birds trained for the purpose; and by nets, gins, traps, pitfalls, and various contrivances.

Falcons are bred up for hawking; the Faithful Jacana even herds other domestic fowls; Pelicans are taught to catch fish for their masters; the Passerine tribes are kept on account of their musical talents; Parrots and others are taught to speak; Cocks and Quails are trained to fight with each other for the sport of mankind; the Gallinaceous, Collumbine, and Anserine tribes, are domesticated.

Birds are preserved alive, and kept in aviaries, cages, or other places, for various purposes; some for the value of their feathers and quills; some for their flesh; others for their eggs; some on account of their musical talents; and others merely for their beauty.

A complete history of birds ought to contain a full description of each, their abode, their flight, their migration, their nuptials, their nests, their eggs, their hatching, the education of their young, and their food.

The generic characters of birds should be taken from the Bill, Tongue, Nostrils, Cere, Wattles, Warts, and other parts which have no feathers.

Ornithological authors may be divided into the earlier and latter writers. Of the former, Bellon, or Bellonius, who flourished in 1557, and Gefner in 1555, may be considered as the fathers of the science; Aldrovandus, in 1599, collected from their works, and made considerable additions; in 1648, Marcgrave added the newly discovered birds of Brasil; Mr Ray, in conjunction with his disciple Willoughby, formed his system in 1667, and published it in 1678; and Marsigli published several figures of birds in 1726.

Among the moderns, several authors have thrown great light on the subject by means of coloured figures, resembling the life: Albinus published tables of the European birds in 1731; Bernini published, in 1772, and from that to 1782, the birds found in the south of Europe; Cetti, in 1776, those of Sardinia; Frischius, in 1734, those of Germany; Nozemann and Seppi, those of the Low Countries, from 1770 to 1778; some Swedish birds were edited by Tengmalm; the Prussian by Bockius; the British birds, in 1775, by Hayes; these and the birds of India, by Pennant, between 1768 and 1777; one hundred new and rare birds were published by Catesby in 1731; upwards of three hundred were published, in a very beautiful manner, by Edwards, in 1745; above nine hundred by Daubenton, from 1775 downwards; some by Jacquin in 1784; by Merem, from 1784 to 1786; those of the Carlsonian museum, with descriptions by Sparrmann,

in 1786. The eggs of a great number of birds are described by Gunther, and engraved by Wirsingius, in a publication of the year 1703. The anatomy and physiology of birds have been greatly illustrated by Reaumeur, Hewson, Camper, Hunter, Blumenbach, Merrem, Bloch, Vicq d'Azyr, Pallas, Guldenshaedt, Silberschlag, and Malacarne.

In the *Fauna Suecica*, published in 1746, I* first attempted a regular system of ornithology, which was farther perfected in the edition 1758 of the *Systema Naturae*. In 1760, Brisson published his system, in which he was assisted by all the ingenuity, and by the museum, of the great Reaumeur. Since that time Pennant, in 1781, and Latham first in 1785, and afterwards in 1790, have published systems of ornithology, with the addition of all the latter discoveries.

Birds are preserved for inspection and study in various ways; either whole in spirits of wine; or their skins are dried; or, after taking out their flesh, intrails, and brain, they are stuffed in their natural forms, with the addition of various antiseptics; or, when cut in two, and emptied of all the soft parts, one half of the skin is filled with Paris plaster, in the manner used by Schaeffer.

OF THE TERMS USED IN ORNITHOLOGY.

AS the terms used in ornithological descriptions are numerous, and as it is of the utmost consequence to the student of natural history to be thoroughly acquainted with them, the following enumeration of such as are most necessary, with reference to the annexed engraving, may, it is hoped, be found of considerable advantage. It is necessary to remark, that the length of a bird is to be understood as measured along the back from the tip of the bill to the end of the tail; and that by extent is meant the measure between the tips of the wings when fully extended: The under parts of the body are the breast, belly, and under surface of the rump; the upper parts are the back and rump, sometimes including the upper surface of the wings and tail, if these are not particularly described; and, with a similar reservation, the thighs, the under surface of the tail and wings, and the sides under the wings, are sometimes included in

* Linnaeus; but this part of the introduction is altered by Gmelin.—T.

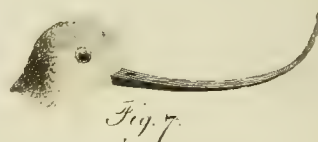
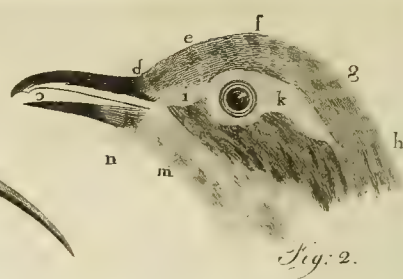
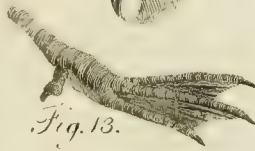


Fig. 5.



in the general expression of under parts : In descriptions, especially such as are employed for distinctive characters of the species and varieties, the words *above* and *beneath* are used, for shortness, to denote the upper and under parts of the body when applied generally; and sometimes they are employed particularly to signify the upper or under surfaces of the wings or tail; but in this last case that circumstance is always specified. When a bird is said to be of a particular colour, it is to be understood as expressing the prevailing colour of the body, if particular parts be mentioned, as differently coloured; otherwise the whole plumage is to be supposed of the single colour mentioned.—T.

EXPLANATION OF THE PLATE.

Fig. 1. Shews a bird extended, on purpose to explain the principal parts of the head, body, wings, and tail.

- a. The bastard wing.
- b. The lesser coverts.
- c. The greater coverts.
- d. The scapulars.
- e. The primary wing quills.
- f. The secondary wing quills.
- g. The tertials.
- h. The rump.
- i. The tail coverts.
- k. The tail quills.
- l. The shoulders.
- m. The crown.
- n. The front.
- o. The hind-head.
- p. The nape.
- q. The chin.
- r. The throat.
- s. The scrag.
- t. The interscapular region.

Fig. 2. Shews the particular parts of the head.

- a. The upper mandible.
- b. The under mandible.
- c. The tooth-like process.
- d. The frontlet.
- e. The front.
- f. The crown.
- g. The hind-head.
- h. The nape.
- i. The straps.
- k. The temples.
- l. The cheeks.
- m. The chin.
- n. Bristles at the base of the bill.

Fig. 3. A bird's head, having a crest on the top of the head, and a slender crooked bill.

Fig. 4. The head of a Pelican.

- a. The upper mandible.
- b. A claw-like process at the tip.
- c. A sac extended from the two sides of the under mandible.
- d. A naked frontlet.
- e. A naked orbit.
- f. A tuft or crest on the hind-head.

Fig. 5. The head of an Eagle or Falcon.

a. The upper mandible, hooked at the end, and furnished with a tooth-like process.

b. The cere, or naked skin, which covers the base of the bill, in which the nostrils are situated.

c. The orbit, or region of the eye.

Fig. 6. A slender straight bill.

Fig. 7. A slender recurved bill.

Fig. 8. The head of a Duck, having a flat bill, pectinated at the edges, and furnished at the tip with a claw.

Fig. 9. A perching foot.

Fig. 10. A walking foot, having a spur on the heel.

Fig. 11. A climbing foot, two of the toes being turned backwards.

Fig. 12. A peculiar kind of perching foot.

Fig. 13. A webbed foot, in which the fourth, or back, toe is not included in the web.

Fig. 14. A webbed foot, in which all the four toes are connected together.

Fig. 15. A half-webbed foot.

Fig. 16. A three toed webbed foot, having no back toe.

Fig. 17. A three toed, or tridactylous, foot slightly connected, but not webbed, usually belonging to some of the waders.

Fig. 18. A finned foot.

Fig. 19. A lobated foot.

Fig. 20. A three toed running foot without any web, belonging to land birds; some have only two toes.

OF THE DIVISION OF THE CLASS OF BIRDS.

THE Linnaean division of birds is only into six orders, which the illustrious master of our science considers as having some analogy with the first six orders of the class of Mammalia, excluding the order of Cete.

- I. ACCIPITRES, analogous to the *Ferae*.
- II. PICÆ, analogous to the *Primates*.
- III. ANSERES, analogous to the *Beſtiae*.
- IV. GRALLÆ, analogous to the *Bruta*.
- V. GALLINÆ, analogous to the *Pecora*.
- VI. PASSERES, analogous to the *Glires*.

In the following division of the class into orders, the Linnaean arrangement is preserved; but, in imitation of the celebrated ornithologist Mr Latham, three additional orders

orders are formed; which trifling alteration of the Linnaean system, it is hoped, will be found useful to students of natural history; perhaps it might have been better to have imitated Mr Latham's plan still farther, by separating the Terrestrial from the Aquatic birds.

No change whatever is made on the two first orders, the *Accipitres* and *Picae*.—Between the orders of *Anseres* and *Grallae*, an intermediate order is introduced, called, by Mr Latham, *Pinnatipedes*, or Fin-footed birds, which differ considerably both from the Web-footed birds, *Palmipedes*, and the Cloven-footed Waders, *Grallae*.—The order of Web-footed birds, *Palmipedes*, which answers to the *Anseres* of Linnaeus, is farther subdivided, but without instituting an additional order, into such as have long legs, and have their feet only half webbed, *Semipalmati*, and those which are completely webbed and have short legs.—The order of *Gallinae*, which may, in English, be rendered Poultry, is preserved as in the Linnaean arrangement; but a small number of birds, which differ very essentially from the rest in their characters, are separated into a distinct order named *Strutiones*, as resembling the Ostrich, *Struthio*, in characteristic marks.—Lastly, the order of *Passeres*, or small birds, is preserved exactly as in the Linnaean division of the class, except only that the genus of Doves, *Columbae*, from having very essential characters differing materially from the rest, is placed by itself as a separate order.

As a translator, the Editor of this English edition of the Animal Kingdom had certainly no right to alter the Linnaean arrangement; but, instructed by the examples of Mr Pennant and Mr Latham, he has taken the liberty of subdividing some of these orders, and of altering, in a slight degree, the situation of a very small number of the genera, which he hopes will be of considerable use to the ornithological student. Yet, however much he may be convinced that this alteration was for the better, he certainly should not have hazarded any deviation from the plan of the Linnaean system, if Dr Gmelin had not, in repeated instances, sanctioned this freedom by similar alterations, to adapt the system of his great precursor to the advanced state of natural knowledge in which he found it.

C H A R A C T E R S

OF THE

O R D E R S O F B I R D S.

I. ACCIPITRES, OR RAPACIOUS BIRDS.

THE bill is somewhat crooked downwards, having the upper mandible either dilated a little towards the point, or armed with a tooth-like process; and the nostrils are open.—The legs are short and strong; the feet are of the kind called perching, having three toes forwards, and one backwards; the toes are warty under the joints; the claws are hooked and very sharp at the points.—The body, head, and neck, are very muscular; and the skin is very tough. The animals of this order live by preying on other animals, and on dead carcases; and their flesh is unfit to be eaten. They live in pairs, and build their nests in lofty places; the female is generally larger and stronger than the male, and usually has four eggs each brood.

H. PICÆ, OR PIES.

The bill is sharp edged, and convex on its upper surface.—The legs are short, strongish, and of different kinds, some perchers, some climbers, and some fitted for walking, that is, having no back toe.—The body is firmly constructed.—The birds of this order live on various kinds of food, and are mostly reckoned unfit for food. They pair in the breeding season, building their nests on trees; and the male feeds the female during the process of incubation, or hatching.

III. PALMIPEDES, OR WEB-FOOTED BIRDS.

* Having long legs.

The body is conical and somewhat flattened.—The thighs are naked on their lower halves; the legs are very long; the feet are fitted for wading; and the toes are only connected together at their posterior parts by a membrane, *semipalmati*.—These birds mostly pair in breeding time, and build their nests on the ground. They feed in the
water

water on small fishes, and various insects; and, especially when young, are pretty good eating.

**** *Palmati.*** Having short legs.

The bill is smooth, covered with a membranous skin, and increases in size towards the point.—The feet are fitted for swimming, having short legs, which are thin, or compressed laterally; and the toes are all connected, to their ends, by an interposed membrane.—These birds are mostly polygamous, one male associating with many females; they build their nests chiefly on the ground, and the mother seldom takes any trouble in feeding the young, which are very soon able to provide for themselves; they live very much in the water, feeding on aquatic plants, fishes, and other substances, and their flesh has generally a rancid fishy flavour.

IV. PINNATIPEDES, OR FIN-FOOTED BIRDS.

The bill, body, and mode of life, in the birds of this order, resemble those of the Waders.—The thighs are likewise naked for the lower half, and the feet are fitted for wading in marshes, all the toes being divided; but the toes are edged on each side with a membrane for their whole length. These birds mostly live in pairs, while breeding, and construct very large nests of various leaves and grass, in their marshy haunts.

V. GRALLÆ, OR WADERS.

The bill is somewhat cylindrical.—The thighs are half naked above the knees; the legs are longish, and the feet are fitted for walking, or wading in miry places, having all the toes distinct, and destitute of any interposed membranes.—The body is thin and compressed at the sides, having a very thin skin.—The birds of this order mostly build their nests on the ground, living some in pairs, and others promiscuously.—They live much among fens and marshes, feeding on worms, and other animal productions of such places; and in general they are reckoned delicate eating.

VI. GALLINÆ, OR POULTRY.

The bill is convex, the upper mandible lying like an arch over the lower; and the nostrils are arched over with a cartilaginous membrane.—The feet are of the kind called Runners, *cursorii*, and the toes are rough underneath.—The body is fat and fleshy.—The birds of this order live mostly on the ground, scraping the earth with their feet, and feeding on grain and seeds, which are macerated in a crop before digestion; this operation is performed by means of a strong muscular stomach called the Gizzard; their flesh is universally fit for food.—They live mostly in polygamous families of one male and many females, building their nests with very little art on the

ground, and the females lay great numbers of eggs each brood; they generally lead their young ones very early in quest of food, which they point out to them by a particular call.

VII. STRUTHIONES, OR STRUTHIOUS BIRDS.

The body is very bulky and heavy, and is scarcely eatable.—The wings are either entirely wanting, or are very small and altogether useless for flight.—The feet are fitted for running, having the toes variously disposed in the different genera.—The birds of this order live in pairs, when breeding; build their nests on the ground, or even leave their eggs there without any nest; and they feed on vegetables and seeds.

VIII. PASSERES, OR PASSERINE BIRDS.

The bill is of a conical form, and pointed at the end.—The feet are fitted for perching and hopping, the toes being slender and divided, with slender bent sharp claws.—The body is slender.—The birds of this order mostly live in pairs when breeding, building artificially constructed nests, in various situations; they mostly sing; they feed some on seeds, and others on insects, keeping much on the branches of trees, bushes, and hedges; and they feed their young ones by pushing the food down their throats from their own bills. Such as live on insects are reckoned unfit for food, but those that feed on seeds and grain are good eating.

IX. COLUMBÆ, OR DOVES.

The bill is straightish, and is swelled out at the base.—The legs are short, with feet fitted for walking, which have simple short, blunt, claws.—The body is fleshy, and makes very good high flavoured food.—This race of birds lives in pairs, when breeding, making very inartificial nests on trees, or in hollow places of rocks and caverns; they feed on seeds, grain, and fruits, having a crop and gizzard like the Gallinaceous birds, and they feed their young ones with such food as has been already macerated in the crops of the mother.

CHARAC-

C H A R A C T E R S

OF THE

G E N E R A O F B I R D S.

I. ACCIPITRÆ, OR RAPACIOUS BIRDS.

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|-------------------|-------------------------|--|
| 1. Vulture. | 1. <i>Vultur.</i> 41. * | The bill is hooked at the end ; and the head is naked. |
| 2. Falcon. | 2. <i>Falco.</i> 42. | The bill is hooked at the end, and its base is covered with a naked membrane. |
| * Bastard-eagles. | <i>Gypaëti.</i> | The end of the bill only is hooked, and its base has a beard of long bristles. |
| ** Eagles. | <i>Aquilaæ.</i> | Of great size, and mostly having hairy or feathery legs. |
| *** Hawks. | <i>Falcones.</i> | Of smaller size, with naked feet. |
| 3. Owl. | 3. <i>Strix.</i> 43. | The bill is hooked at the end, and has a frontlet of reversed bristles. |
| 4. Shrike. | 4. <i>Lanius.</i> 44. | The bill is almost straight, and is notched near the end. |

II. PICÆ, OR PIES.

* With perching feet.

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|-------------------|------------------------|-------------------------------|
| 10. Beef-eater. † | 8. <i>Buphaga.</i> 48. | A straight quadrangular bill. |
|-------------------|------------------------|-------------------------------|

12.

* The three sets of numerals employed in this edition, to the genera of birds, are to be thus understood: The numerals prefixed to the English name of each genus marks its order in the class of birds of this edition: The numeral prefixed to the Latin name of the genus shews the order of arrangement followed in Dr Gmelin's edition of the *Systema Naturæ*; and where that numeral is wanting, the genus has been added from Latham's *Index Ornithologicus*: The numeral which follows the Latin name is prefixed to each genus by Dr Gmelin, as a running number of the genus in the Animal Kingdom; where that is wanting, and at the same time a numeral precedes the Latin name, the genus has been added by Dr Gmelin.—T.

† It may be necessary to remark, that the apparent confusion of the running numbers of the genera

12. Wattlet.	10. <i>Glaucopis</i> .	An arched bill, bent downwards.
13. Crow.	11. <i>Corvus</i> . 50.	A sharp edged bill, and reversed frontlet.
14. Roller.	12. <i>Corracias</i> . 51.	A sharp edged bill, with the point bent downwards.
15. Oriole.	13. <i>Oriolus</i> . 52.	A straight, conical, and very sharp pointed bill.
16. Grakle.	14. <i>Gracula</i> . 53.	A sharp edged equal bill, naked at the base.
17. Paradiset.	15. <i>Paradisea</i> . 54.	A sharpish edged bill, with a silky frontlet.
25. Nut-hatch.	21. <i>Sitta</i> . 60.	A straight bill, wedge-like at the end.
28. Hoopoe.	25. <i>Upupa</i> . 64.	A bluntish bill, bent downwards.
29. Creeper.	26. <i>Certhia</i> . 65.	A sharp pointed bill, bent downwards.
30. Hummer.	27. <i>Trochilus</i> . 66.	A narrow bill, tubular at the end, and bent downwards.

** With climbing feet.

5. Parrot.	5. <i>Psittacus</i> . 45.	A hooked bill, and fleshy tongue.
6. Toucan.	6. <i>Ramphastos</i> . 46.	A serrated bill, and feathery tongue.
8. Scythrops.	<i>Scythrops</i> .	A sharp edged bill, and split tongue.
11. Ani.	9. <i>Crotophaga</i> . 49.	A wrinkled bill, angular at the edges.
18. Curucui.	16. <i>Trogon</i> . 55.	A serrated bill, hooked at the point.
19. Barbet.	17. <i>Bucco</i> . 56.	A smooth notched bill, hooked at the point.
20. Cuckow.	18. <i>Cuculus</i> . 57.	A smooth bill, with a rim round the nostrils.
21. Wryneck.	19. <i>Funx</i> . 58.	A smooth bill, with a worm-like tongue.
22. Woodpecker.	20. <i>Picus</i> . 59.	An angular bill, with a worm-like tongue.
23. Jacamar.	<i>Galbula</i> .	An angular and very sharp pointed bill.

*** With walking feet.

7. Motmot.	<i>Momotus</i> .	An angular bill, and feathery tongue.
9. Hornbill.	7. <i>Buceros</i> . 47.	A serrated bill, with a horny front.
24. Kingsfisher.	23. <i>Alcedo</i> . 62.	A straight triangular bill.
27. Bee-eater.	24. <i>Merops</i> . 63.	The bill is compressed, and bent downwards.
26. Tody.	22. <i>Todus</i> . 61.	A straight, flattened, slender bill.

III.

nera is occasioned by the strictly artificial arrangement in which they are here placed, to facilitate the discovery of any particular genus which may be wanted; but the order in which they are placed, in the body of the work, being more natural, and the different genera that resemble each other being placed as near together as possible, without so much attention to artificial distinctions, these numbers which precede the English names must be understood as expressing the more natural arrangement: The uses of the other two sets of numbers have been already explained in the preceding note.—T.

III. PALMIPEDES, OR WEB-FOOTED BIRDS.

* Half-webbed, having long legs. *Semipalmati*.

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|---------------|---------------------------------|---|
| 31. Avocet. | 53. <i>Recurvirostra</i> . 89. | A flattened, slender, pointed bill, bent upwards. |
| 32. Courier. | 49. <i>Corrira</i> . | A short, straight, narrow, toothless bill. |
| 33. Flamingo. | 41. <i>Phoenicopterus</i> . 79. | A denticulated bill, bent upwards abruptly. |

** Full-webbed, having short legs. *Palmati*.

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|----------------|------------------------------|--|
| 34. Duck. | 28. <i>Anas</i> . 67. | A broad bill, with a claw at the point of the upper mandible, and having membranous teeth at the edges. |
| 35. Merganser. | 29. <i>Mergus</i> . 68. | A slender bill, with a claw at the point, and having sharp teeth at the edges. |
| 36. Auk. | 30. <i>Alca</i> . 69. | The bill is flattened at the sides, with transverse lateral wrinkles; the feet have three toes. |
| 37. Penguin. | 31. <i>Aptenodyta</i> . | The bill is straight, narrow, furrowed at the sides, and a little bent downwards at the point; the wings resemble fins, and are useless for flight. |
| 38. Petrel. | 32. <i>Procellaria</i> . 70. | The bill is straight, and hooked at the end; the nostrils resemble a tube lying on the base of the bill; the feet have each a spur in place of a back toe. |
| 39. Albatross. | 33. <i>Diomedea</i> . 71. | The lower mandible is abrupt, the upper one hooked at the end; the feet have three toes. |
| 40. Pelican. | 34. <i>Pelicanus</i> . 72. | The face is naked; a membranous bag hangs down from the under mandible. |
| 41. Darter. | 35. <i>Plottus</i> . 73. | The bill is long, straight, sharp pointed, and serrated at the edges; the neck is very long. |
| 42. Tropicer. | 36. <i>Phaeton</i> . 74. | The bill is flattened at the sides, sharp-edged, and serrated. |
| 43. Guillemot. | <i>Uria</i> . | The bill is straight, slender, strong, and pointed; the feet have only three toes. |

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|--------------|--------------------------|---|
| 44. Diver. | 37. <i>Colymbus.</i> 75. | The bill is straight, strong, and pointed, the edges of the mandibles bending inwards; the legs are fettered. |
| 45. Gull. | 38. <i>Larus.</i> 76. | The under part of the lower mandible, near the point of the bill, is prominent. |
| 46. Tern. | 39. <i>Sterna.</i> 77. | The bill is straight, slender, pointed, and flattened laterally at the end. |
| 47. Skimmer. | 40. <i>Rynchops.</i> 78. | The upper mandible is shorter than the under one. |

IV. PINNATIPEDES, OR FIN-FOOTED BIRDS.

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|----------------|------------------------|---|
| 48. Phalarope. | <i>Phalaropus.</i> | The bill is straight and slender. |
| 49. Coot. | 56. <i>Fulica.</i> 91. | The bill is strong, thick, conical, and somewhat flattened at the sides; the front is composed of the base of the bill, and is naked. |
| 50. Grebe. | <i>Podiceps.</i> | The bill is long, slender, and sharp pointed; the feet are fettered; the tail is wanting. |

V. GRALLÆ, OR WADERS.

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|----------------|---------------------------|--|
| 51. Spoonbill. | 42. <i>Platalea.</i> 80. | The bill is long, broad, flat, thin, and much widened at the end. |
| 52. Screamer. | 43. <i>Palamedea.</i> 81. | The bill is sharp, and hooked at the end. |
| 53. Jabirou. | 44. <i>Mycteria.</i> 82. | The bill is long, large, and bent upwards; the upper mandible thicker, and triangular. |
| 54. Boat-bill. | 45. <i>Cancroma.</i> 83. | The bill is broad, and flat, having a ridge along the middle like the keel of a reversed boat. |
| 55. Umbre. | 46. <i>Scopus.</i> | The bill is thick, flattened at the sides, blunt, and ridged. |
| 56. Heron. | 47. <i>Ardea.</i> 84. | The bill is long, strong, straight, and sharpish. |
| 57. Ibis. | 48. <i>Tantalus.</i> 85. | The bill is crooked; the face naked; and the chin is furnished with a bag. |

59. Curlew.	<i>Numenius.</i>	The bill is crooked ; and the face is covered with feathers.
58. Snipe.	50. <i>Scolopax.</i> 86.	The bill is straight, long, roundish, and bluntish.
60. Sandpiper.	51. <i>Tringa.</i> 87.	The bill is straight, roundish, and blunt ; the back toe hardly reaches the ground.
61. Plover.	52. <i>Charadrius.</i> 88.	The bill is straight and roundish ; the feet have no back toe.
62. Runner.	<i>Curforius.</i>	The bill is roundish, and hooked at the point ; the feet have no back toe.
63. Oyster catcher.	54. <i>Haematopus.</i> 90.	The bill is flattened at the sides, and wedge-like at the end ; the feet want the back toe.
64. Pratincole.	55. <i>Glareola.</i>	The bill is short, strong, straight, and hooked at the end ; the nostrils are long, narrow, and oblique.
65. Sheath-bill.	57. <i>Vaginalis.</i>	The bill is thick, and conical, and the extremity of the upper mandible is covered with a horny sheath, lying over the nostrils.
66. Jacana.	58. <i>Parra.</i> 92.	The base of the bill is beset with moveable warts.
67. Rail.	59. <i>Rallus.</i>	The bill is somewhat ridged on the back ; the body is flattened at the sides.
68. Gallinule.	<i>Gallinula.</i>	The bill is thick at the base, straight, and sharp pointed ; the front is naked.

VI. GALLINÆ, OR POULTRY.

70. Bustard.	61. <i>Otis.</i> 95.	The bill is somewhat convex ; the tongue is notched ; the feet want the back toe.
71. Peacock.	64. <i>Pavo.</i> 98.	The bill is short, strong, and convex ; the crown is ornamented with an erect crest of feathers.
72. Turkey.	65. <i>Meleagris.</i> 99.	The face and neck are covered with naked warty flesh.
73. Penelope.	66. <i>Penelope.</i>	The bill has no cere ; the head is clothed with feathers.

74. Curaffo.	67. <i>Crax</i> . 100	The bill is covered at the bafe with a cere.
75. Pheafant.	68. <i>Phaifanus</i> . 101	The cheeks are naked and fmoth.
76. Pintado.	69. <i>Numida</i> . 102.	Has two pendant wattles at the bafe of the bill.
79. Tinamou.	<i>Tinamus</i> .	The bill is longifh, and blunt at the end, having the noftrils about its middle.
77. Grous.	70. <i>Tetrao</i> . 103.	The bill is ftrong, fhort, and convex; above each eye is a naked coloured fkin.
78. Partridge.	<i>Perdix</i> .	The bill is ftrong, fhort, and convex; the fpace above each eye is covered.
69. Trumpeter.	60. <i>Pfophia</i> . 94.	The bill is fhort, and a little convex on the upper mandible; the noftrils are oval and pervious; the lower half of the thighs are naked.

VII. STRUTHIONES, OR STRUTHIOUS BIRDS.

83. Dodo.	63. <i>Didus</i> . 97.	The bill is large, ftraited in the middle, and hooked at the end; the face is almoft naked; the feet have three toes before and one behind.
82. Tougai.	<i>Rhea</i> .	The bill is ftraight, and fomewhat conical; the feet have three toes before, and a callofity in place of the back toe.
81. Caffowary.	<i>Cafuarius</i> .	The bill is ftraight, and fomewhat conical; the feet have three toes before, and none behind.
80. Oflrich.	62. <i>Struthio</i> . 86.	The bill is ftraight, flattened, and blunt; the feet have two toes before, and none behind.

VIII. PASSERES, OR PASSERINE BIRDS.

* Having thick bills. *Craffiroftres*.

89. Grofsbeak.	77. <i>Loxia</i> . 109.	The bill is very thick at the bafe, and of a conical form, being convex both above and below.
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|--------------|-----------------------------|--|
| 88. Coly. | 76. <i>Colius</i> . | The bill is convex above, and straight below. |
| 92. Finch. | 80. <i>Fringilla</i> . 112. | The bill is conical, and sharp pointed. |
| 93. Rara. | 81. <i>Phytotoma</i> . | The bill is straight, conical, and ferrated. |
| 90. Bunting. | 78. <i>Emberiza</i> . 110. | The bill is somewhat conical, its under mandible being broader, and turned inwards at the edges. |

** Having the end of the upper mandible somewhat hooked. *Curvirostres*.

- | | | |
|------------------|-------------------------------|--|
| 100. Goatfucker. | 87. <i>Caprimulgus</i> . 118. | The bill is hooked, flattened, excessively wide in the gap, and fringed at the base; the nostrils are tubular. |
| 99. Swallow. | 86. <i>Hirundo</i> . 117. | The bill is short, broad at the base, flattened, sharp pointed, and somewhat hooked. |
| 97. Manakin. | 84. <i>Pipra</i> . 115. | The bill is short, strong, and slightly hooked. |

*** Having the upper mandible notched, on each side, near the end. *Emarginirostres*.

- | | | |
|-----------------|-----------------------------|---|
| 86. Thrush. | 74. <i>Turdus</i> . 107. | The bill is tapering, and pointed, having the base flattened at the sides. |
| 87. Chatterer. | 75. <i>Ampelis</i> . 108. | The bill is tapering, pointed, and somewhat flattened at the base. |
| 91. Tanager. | 79. <i>Tanagra</i> . 111. | The bill is tapering, and pointed; and the base is of a conical form. |
| 94. Flycatcher. | 82. <i>Muscicapa</i> . 113. | The bill is tapering, and pointed; and the base is flattened and fringed with bristles. |

**** Having straight, slender, tapering, sharp pointed, bills. *Simplicirostres*.

- | | | |
|--------------|-----------------------------|--|
| 85. Stare. | 73. <i>Sturnus</i> . 106. | The bill is flattened at the end. |
| 84. Lark. | 72. <i>Alauda</i> . 105. | The tongue is cloven; the claw of the back toe is very long. |
| 95. Wagtail. | 83. <i>Motacilla</i> . 114. | The end of the tongue seems torn; the tail is long. |
| 96. Warbler. | <i>Sylvia</i> . | The end of the tongue is cloven; the tail is short. |

98. Titmouse.

85. *Parus*. 116.

The tongue seems cut off at the end, and is fringed with three or four bristles; the frontlet consists of reflected bristles which cover the nostrils.

IX. COLUMBÆ, OR DOVES.

101. Pigeon.

71. *Columba*. 104.

The bill is weak, slender, straight at the base, and a little protuberant near the end, where the nostrils are lodged.

S Y S T E M.

SYSTEMATIC CATALOGUE

OF THE

B I R D S.

I. RAPACIOUS BIRDS.

VULTURE.

i

VULTUR.

- 1 Condour
- 2 White-headed Vulture
- 3 Norwegian White-headed Vulture
- 4 Sardinian White-headed Vulture
- 5 Sooty White-headed Vulture
- 6 Bengal White-headed Vulture
- 7 King Vulture
- 8 Arabian Vulture
- 9 Carrion Vulture
- 10 Black Carrion Vulture
- 11 Cinereous Vulture
- 12 Blackish Cinereous Vult.
- 13 Maltese Vulture
- 14 Black Vulture
- 15 Fulvous Vulture
- 16 Aquiline Vulture
- 17 Egyptian Aquiline Vult.
- 18 Crested Vulture
- 19 Barbary Vulture
- 20 Pondichery Vulture
- 21 Indian Vulture
- 22 Gingi Vulture

- 1 Vultur Gryphus
- 2 Vultur leucocephalus
 - β. V. leucocephalus norvegicus
 - γ. V. leucocephalus fardicus
 - δ. V. leucocephalus fuliginosus
 - ε. V. leucocephalus bengalensis
- 3 Vultur Papa
- 4 Vultur Monachus
- 5 Vultur Aura
 - β. V. Aura niger
- 6 Vultur cinereus
 - β. V. cinereus nigricans
- 7 Vultur fuscus
- 8 Vultur niger
- 9 Vultur fulvus
- 10 Vultur Percnopterus
 - β. V. Percnopterus aegyptius
- 11 Vultur cristatus
- 12 Vultur barbarus
- 13 Vultur pondicerianus
- 14 Vultur indicus
- 15 Vultur ginginianus

FALCON.

ii

FALCO.

Divided into

* BASTARD-EAGLES.

GYPÆTI.

- 23 Secretary
- 24 Harpy
- 25 Black Harpy
- 26 Tawny Bastard-eagle
- 27 Angola Bastard-eagle
- 28 Bearded Bastard-eagle
- 29 Golden Bastard-eagle
- 30 Persian Bastard-eagle

- 1 Gypætus serpentarius
- 2 Gypætus Harpyja
- 3 Gypætus Jacquini
- 4 Gypætus ambustus
- 5 Gypætus angolensis
- 6 Gypætus barbatus
 - β. G. barbatus aureus
 - γ. G. barbatus persicus

- 31 Cinereous Bastard-eagle
- 32 Plaintive Bastard-eagle
- 33 Cheriway

- 7 Gypætus Albicilla
- 8 Gypætus plancus
- 9 Gypætus Cheriway

** EAGLES.

AQUILÆ.

- 34 Crowned Eagle
- 35 Chilese Eagle
- 36 Common Eagle
- 37 German Eagle
- 38 Bald Eagle
- 39 Osprey
- 40 Golden Eagle
- 41 Tawny Eagle
- 42 Canadian Tawny Eagle
- 43 White-bellied Eagle
- 44 Japanese Eagle
- 45 American Eagle
- 46 White Eagle
- 47 Louisiana Eagle
- 48 Small Eagle
- 49 Spotted Eagle
- 50 White-tailed Eagle
- 51 French Eagle
- 52 Antarctic Eagle
- 53 Black-backed Eagle
- 54 White-crowned Eagle
- 55 Russian Eagle
- 56 Crested Eagle
- 57 Rough-legged Eagle
- 58 Greenland Eagle
- 59 Fierce Eagle
- 60 Javan Eagle
- 61 Egyptian Eagle
- 62 Kite
- 63 Siberian Kite
- 64 Russian Kite
- 65 Jaic Kite
- 66 Black Kite
- 67 Austrian Kite
- 68 Brazilian Kite

- 1 Aquila coronata
- 2 Aquila Tharus
- 3 Aquila Melanaetos
- 4 Aquila Glaucoptis
- 5 Aquila leucocephala
- 6 Aquila Offifraga
- 7 Aquila Chrysaetos
- 8 Aquila fulva
 - β. A. fulva canadensis
- 9 Aquila leucogaster
- 10 Aquila japonensis
- 11 Aquila americana
- 12 Aquila alba
- 13 Aquila candida
- 14 Aquila naevia
- 15 Aquila maculata
- 16 Aquila albicauda
- 17 Aquila gallica
- 18 Aquila australis
- 19 Aquila melanotos
- 20 Aquila leucoryphos
- 21 Aquila Mogilnik
- 22 Aquila cristata
- 23 Aquila lagopus
- 24 Aquila groenlandica
- 25 Aquila ferox
- 26 Aquila javanica
- 27 Aquila aegyptia
- 28 Aquila Milvus
 - β. A. Milvus fibiricus
 - γ. A. Milvus Korschun.
 - δ. A. Milvus jaicensis
- 29 Aquila atra
- 30 Aquila austriaca
- 31 Aquila brasiliensis

- 69 Peruvian Kite
70 Balbuzard
71 Russian Balbuzard
72 Carolina Balbuzard
73 Cayenne Balbuzard
74 Mansfey
75 Chinese Eagle
76 Cheela
77 Asiatic Eagle
78 New-holland Eagle
79 Urubutinga
80 Pondichery Eagle
81 Equinoctial Eagle

- 32 *Aquila peruviana*
33 *Aquila Haliaetos*
 β. A. Haliaetos arundinacea
 γ. A. Haliaetos carolinensis
 δ. A. Haliaetos cayennensis
34 *Aquila antillarum*
35 *Aquila sinensis*
36 *Aquila Cheela*
37 *Aquila asiatica*
38 *Aquila novae-hollandiae*
39 *Aquila Urubutinga*
40 *Aquila pondiceriana*
41 *Aquila aequinoctialis*

- 121 White Iceland Falcon
122 Spotted Iceland Falcon
123 Barbary Falcon
124 Peregrine Falcon
125 Tartarian Peregrine Falcon
126 Variegated Falcon
127 Booted Falcon
128 Chocolate Falcon
129 White-rumped Chocolate Falcon

- β. F. islandus albus*
γ. F. islandus maculatus
28 *Falco barbarus*
29 *Falco peregrinus*
 β. F. peregrinus tartaricus
30 *Falco verficolor*
31 *Falco pennatus*
32 *Falco spadiceus*
 β. F. spadiceus leucourus

- 130 St John's Falcon
131 Sacre
132 American Sacre
133 Newoundland Falcon
134 Starry Falcon
135 Northern Falcon
136 Rhomboidal Falcon
137 Black-necked Falcon
138 White-necked Falcon
139 Red-headed Falcon
140 Crested Falcon
141 Pied Falcon
142 Ceylonese Falcon
143 Grey Falcon
144 Brown Gyr Falcon
145 White Gyr Falcon
146 Iceland Gyr Falcon
147 Surinam Falcon
148 Laughing Falcon
149 Streaked Falcon
150 Notched Falcon
151 Common Lanner
152 White Lanner
153 Spot-tailed Lanner
154 Blue Hawk
155 Ring-tail Hawk
156 Hudsons Hawk
157 Scarlet Hawk
158 Marsh Hawk
159 Stone Falcon
160 Mountain Falcon
161 Ash coloured Mountain Falcon

- 33 *Falco Sti johannis*
34 *Falco facer*
 β. F. facer americanus
35 *Falco novae-terrae*
36 *Falco stellaris*
37 *Falco hyemalis*
38 *Falco rhombus*
39 *Falco nigricollis*
40 *Falco albicollis*
41 *Falco meridionalis*
42 *Falco cirratus*
43 *Falco melanoleucos*
44 *Falco ceylanensis*
45 *Falco griseus*
46 *Falco Gyr Falcon*
47 *Falco candicans*
 β. F. candicans islandus
48 *Falco sufflator*
49 *Falco cachinnans*
50 *Falco melanops*
51 *Falco bidentatus*
52 *Falco Lanarius*
 β. F. Lannarius albicans
 γ. F. Lanarius celiurus
53 *Falco cyaneus*
54 *Falco pygargus*
55 *Falco hudsonius*
56 *Falco Buffoni*
57 *Falco uliginosus*
58 *Falco Lithofalco*
59 *Falco montanus*
 β. F. montanus cinereus

*** FALCONS & HAWKS.

FALCONES.

- 82 Oriental Hawk
83 Indian Hawk
84 Common Buzzard
85 Greater Buzzard
86 Spotted Buzzard
87 Jamaica Buzzard
88 American Buzzard
89 Rufous Buzzard
90 Speckled Buzzard
91 Whitish Buzzard
92 Honey Buzzard
93 Moor Buzzard
94 Slavonian Buzzard
95 Croatian Buzzard
96 Rusty Buzzard
97 Java Buzzard
98 Cinereous Buzzard
99 Streaked Buzzard
100 Leverian Falcon
101 Plain Falcon
102 Collared Falcon
103 New-zealand Falcon
104 Goshawk
105 Cayenne Falcon
106 Long-tailed Falcon
107 Gentle Falcon
108 Common Falcon
109 Yearling Falcon
110 Haggard Falcon
111 White-headed Falcon
112 White Falcon
113 Black Falcon
114 Spot-winged Falcon
115 Brown Falcon
116 Red-spotted Falcon
117 Tawny Falcon
118 Italian Falcon
119 Arctic Falcon
120 Iceland Falcon

- 1 *Falco orientalis*
2 *Falco indicus*
3 *Falco Buteo*
4 *Falco gallinarius*
 β. F. gallinarius naevius
5 *Falco jamaicensis*
6 *Falco borealis*
7 *Falco rufus*
8 *Falco variegatus*
9 *Falco albidus*
10 *Falco apivorus*
11 *Falco aeruginosus*
12 *Falco slavonicus*
13 *Falco marginatus*
14 *Falco rubiginosus*
15 *Falco javanicus*
16 *Falco cinereus*
17 *Falco lineatus*
18 *Falco leverianus*
19 *Falco obsoletus*
20 *Falco rusticolus*
21 *Falco novae-zeelandiae*
22 *Falco palumbarius*
23 *Falco cayennensis*
24 *Falco macrourus*
25 *Falco gentilis*
26 *Falco communis*
 β. F. communis hornotinus
 γ. F. communis gibbosus
 δ. F. communis leucocephalus
 ε. F. communis albus
 ζ. F. communis ater
 η. F. communis naevius
 θ. F. communis fuscus
 ι. F. communis ruber
 κ. F. communis indicus
 λ. F. communis italicus
 μ. F. communis arcticus
27 *Falco islandus*

- 162 Common Kestrel
163 Grey Kestrel
164 Lark Kestrel
165 Bohemian Hawk
166 Fishing Falcon
167 Brown Hawk
168 Aquiline Falcon
169 American Hawk
170 Sparrow Hawk
171 Spotted Sparrow Hawk
172 White Sparrow Hawk
173 Dubious Falcon
174 Dusky Falcon
175 Pigeon Hawk
176 Grey Pigeon Hawk

- 60 *Falco Tinnunculus*
 β. F. Tinnunculus griseus
 γ. F. Tinnunculus alaudarius
61 *Falco bohemicus*
62 *Falco piscator*
63 *Falco badius*
64 *Falco aquilinus*
65 *Falco fuscus*
66 *Falco Nifus*
 β. F. Nifus maculatus
 γ. F. Nifus lacteus
67 *Falco dubius*
68 *Falco obscurus*
69 *Falco columbarius*
 β. F. columbarius griseus

177 Guiana Falcon	70 Falco superciliosus
178 Ingrian Falcon	71 Falco vespertinus
179 Permian Falcon	72 Falco vespertinoides
180 Great-billed Falcon	73 Falco magnirostris
181 Criard Falcon	74 Falco vociferus
182 Johanna Falcon	75 Falco johannensis
183 Common Hobby	76 Falco Subbuteo
184 Northern Hobby	β. F. Subbuteo borealis
185 Surinam Hobby	77 Falco aurantius
186 Smaller Surinam Hobby	β. F. aurantius minor
187 Spotted Surinam Hobby	γ. F. aurantius maculatus
188 Spot-tailed Hobby	78 Falco plumbeus
189 Common Merlin	79 Falco Aefalon
190 New-york Merlin	β. F. Aefalon noveboracensis

191 Caribbee Merlin	γ. F. Aefalon caribaeorum
192 Falconers Merlin	δ. F. Aefalon falconarium

193 Carolina Merlin	80 Falco Sparverius
194 Domingo Merlin	81 Falco dominicensis
195 Minute Falcon	82 Falco minutus
196 Bengal Falcon	83 Falco ceruleus
197 Siberian Falcon	84 Falco regulus
198 Tiny Falcon	85 Falco pumilus

O W L. iii. S T R I X.

* Eared, or Horned.

199 Great Owl	1 Strix Bubo
200 Athenian Great Owl	β. S. Bubo atheniensis
201 Smooth-legged Great Owl	γ. S. Bubo nudipes
202 Variegated Great Owl	δ. S. Bubo variegata
203 Virginian Owl	2 Strix virginiana
204 Scandinavian Owl	3 Strix scandiaca
205 Ceylon Owl	4 Strix zeylonensis
206 Chinese Owl	5 Strix sinensis
207 Coromandel Owl	6 Strix coromanda
208 Red Owl	7 Strix Asio
209 Mexican Owl	8 Strix mexicana
210 American Owl	9 Strix americana
211 Long-eared Owl	10 Strix Otus
212 Italian Long-eared Owl	β. S. Otus italicus
213 Arctic Long-eared Owl	γ. S. Otus arcticus
214 Short-eared Owl	11 Strix brachyotos
215 Brazilian Owl	12 Strix brasiliensis
216 Mottled Owl	13 Strix naevia
217 Indian Owl	14 Strix indica
218 Sardinian Owl	15 Strix Zorca
219 Carniolic Owl	16 Strix carniolica
220 Yaik Owl	17 Strix diminuta
221 Siberian Owl	18 Strix pulchella
222 Scops Owl	19 Strix Scops

** Earless Owls.

223 Snowy Owl	20 Strix Nyctea
224 Speckled Snowy Owl	β. S. Nyctea striata
225 Swedish Owl	21 Strix Tengmalmi
226 Barred Owl	22 Strix nebulosa

227 Sooty Owl	23 Strix cinerea
228 Spectacle Owl	24 Strix perspicillata
229 Spotted Owl	25 Strix maculata
230 Coquimbo Owl	26 Strix cunicularia
231 Sacred Owl	27 Strix Aluco
232 Austrian Owl	28 Strix sylvestris
233 White Owl	29 Strix alba
234 Reddish Owl	30 Strix Noctua
235 Rusty Owl	31 Strix rufa
236 French Owl	32 Strix soloniensis
237 Mountain Owl	33 Strix barbata
238 Common Owl	34 Strix flammea
239 Screech Owl	35 Strix stridula
240 Brown Owl	36 Strix Ulula
241 Lesser Brown Owl	β. S. Ulula minor
242 Arctic Owl	37 Strix arctica
243 Canadian Owl	38 Strix funerea
244 Hudsons Owl	39 Strix hudsonia
245 Ural Owl	40 Strix uralensis
246 Caspian Owl	41 Strix accipitrina
247 Java Owl	42 Strix javanica
248 New-zealand Owl	43 Strix novae-zeelandiae
249 Spotted New-zealand Owl	β. S. novae-zeelandiae maculata

250 Cayenne Owl	44 Strix cayennensis
251 Domingo Owl	45 Strix dominicensis
252 New-spain Owl	46 Strix Tolchiquatli
253 Chichiculi Owl	47 Strix Chichiculi
254 Acadian Owl	48 Strix acadica
255 Little Owl	49 Strix passerina
256 American Little Owl	β. S. passerina americana
257 Russian Little Owl	γ. S. passerina rossica

S H R I K E. iv. L A N I U S.

258 Drongo Shrike	1 Lanius forficatus
259 Malabar Shrike	2 Lanius malabaricus
260 Fingah Shrike	3 Lanius ceruleus
261 Chestnut Shrike	4 Lanius castaneus
262 Crested Shrike	5 Lanius cristatus
263 Canadian Shrike	6 Lanius canadensis
264 Louisiana Shrike	7 Lanius ludovicianus
265 Grey Shrike	8 Lanius Nengeta
266 Hook-billed Shrike	9 Lanius curvirostris
267 Collared Shrike	10 Lanius collaris
268 Luzonian Shrike	11 Lanius lucionensis
269 Great Shrike	12 Lanius Excubitor
270 White Great Shrike	α. L. Excubitor albus
271 Larger Great Shrike	γ. L. Excubitor major
272 Butcher Shrike	13 Lanius Collurio
273 Variegated Butcher Shrike	β. L. Collurio varius
274 Red Butcher Shrike	γ. L. Collurio rufus
275 Senegal Butcher Shrike	δ. L. Collurio senegalensis
276 Black-crowned Butcher Shrike	ε. L. Collurio melanocephalus
277 Antiguan Shrike	14 Lanius antiguanus
278 Black Shrike	15 Lanius niger
279 Lever's Shrike	16 Lanius Leverianus
280 Surinam Shrike	17 Lanius atricapillus

- | | | | |
|-----------------------------|------------------------------------|--------------------------------------|---|
| 281 Pomeranian Shrike | 18 Lanius pomeranus | 332 Hyacinthine Maccaw | 5 <i>Psittacus hyacinthinus</i> |
| 282 Tyrant Shrike | 19 Lanius Tyrannus | 333 Makawuana | 6 <i>Psittacus Makawuana</i> |
| 283 Domingo Tyrant Shrike | β. <i>L. Tyrannus dominicensis</i> | 334 Black Maccaw | 7 <i>Psittacus ater</i> |
| 284 Carolina Tyrant Shrike | γ. <i>L. Tyrannus carolinensis</i> | 335 Obscure Parrot | 8 <i>Psittacus obscurus</i> |
| 285 Louisiana Tyrant Shrike | δ. <i>L. Tyrannus ludovicianus</i> | 336 Noble Parrot | 9 <i>Psittacus nobilis</i> |
| 286 Chinese Shrike | 20 Lanius Schach | 337 Maracana | 10 <i>Psittacus severus</i> |
| 287 Brazilian Shrike | 21 Lanius Pitangua | 338 Dusky Maracana | β. <i>P. severus erythrocholorus</i> |
| 288 Rufous Shrike | 22 Lanius rufus | 339 Ginge Parrot | 11 <i>Psittacus Eupatria</i> |
| 289 Barbary Shrike | 23 Lanius barbarus | 340 Japanese Parrot | 12 <i>Psittacus japonicus</i> |
| 290 Yellow-bellied Shrike | 24 Lanius sulphuratus | 341 Amboina Parrot | 13 <i>Psittacus amboinensis</i> |
| 291 Cayenne Shrike | 25 Lanius cayanus | 342 Blue-headed Parrot | 14 <i>Psittacus cyanocephalus</i> |
| 292 Spotted Cayenne Shrike | β. <i>L. cayanus naevius</i> | 343 Red-breasted Parrot | 15 <i>Psittacus haematotus</i> |
| 293 Lesser Cayenne Shrike | γ. <i>L. cayanus minor</i> | 344 Molucca Red-breasted Parrot | β. <i>Pf. haematotus moluccanus</i> |
| 294 Orange Shrike | 26 Lanius aurantius | 345 Southern Red-breasted Parrot | γ. <i>Pf. haematotus novae-hollandiae</i> |
| 295 Senegal Shrike | 27 Lanius fenegalus | 346 Davies Red-breasted Parrot | δ. <i>Pf. haematotus daviesianus</i> |
| 296 Madagascar Shrike | 28 Lanius madagascariensis | 347 Black-crowned Parrot | 16 <i>Psittacus atricapillus</i> |
| 297 Bengal Shrike | 29 Lanius Emeria | 348 Tabuan Parrot | 17 <i>Psittacus tabuensis</i> |
| 298 Blue Shrike | 30 Lanius bicolor | 349 Scarlet Tabuan Parrot | β. <i>Pf. tabuensis coccineus</i> |
| 299 Manila Shrike | 31 Lanius leucorynchos | 350 Papuan Parrot | 18 <i>Psittacus papuensis</i> |
| 300 Rusty Shrike | 32 Lanius ferrugineus | 351 Purple-breasted Papuan Parrot | β. <i>Pf. papuensis porphurorosthos</i> |
| 301 Tabuan Shrike | 33 Lanius tabuensis | 352 Black-backed Papuan Parrot | γ. <i>Pf. papuensis melanotos</i> |
| 302 Pacific Shrike | 34 Lanius pacificus | 353 Green-bellied Papuan Parrot | δ. <i>Pf. papuensis chlorogaster</i> |
| 303 Northern Shrike | 35 Lanius septentrionalis | 354 Borneo Parrot | 19 <i>Psittacus borneus</i> |
| 304 Black-capped Shrike | 36 Lanius pileatus | 355 Indian Parrot | 20 <i>Psittacus indicus</i> |
| 305 Green Shrike | 37 Lanius viridis | 356 Beautiful Parrot | 21 <i>Psittacus elegans</i> |
| 306 White-headed Shrike | 38 Lanius leucocephalus | 357 Green Beautiful Parrot | β. <i>Pf. elegans viridis</i> |
| 307 Dominican Shrike | 39 Lanius dominicanus | 358 Gueby Parrot | 22 <i>Psittacus guebienis</i> |
| 308 Panay Shrike | 40 Lanius panayensis | 359 Violet Parrot | 23 <i>Psittacus janthinus</i> |
| 309 White Shrike | 41 Lanius albus | 360 Variegated Parrot | 24 <i>Psittacus variegatus</i> |
| 310 Variegated Shrike | 42 Lanius varius | 361 Pennantian Parrot | 25 <i>Psittacus Pennantii</i> |
| 311 Spotted Shrike | 43 Lanius naevius | 362 Phillips Pennantian Parrot | β. <i>Pf. Pennantii Phillipi</i> |
| 312 Dusky Shrike | 44 Lanius obscurus | 363 Splendid Parrot | 26 <i>Psittacus gloriosus</i> |
| 313 Brown Shrike | 45 Lanius fuscus | 364 New-guinea Parrot | 27 <i>Psittacus novae-guineae</i> |
| 314 Red Shrike | 46 Lanius ruber | 365 Javan Parrot | 28 <i>Psittacus javanicus</i> |
| 315 American Shrike | 47 Lanius americanus | 366 Jandaya | 29 <i>Psittacus Jandaya</i> |
| 316 Lesser Shrike | 48 Lanius minor | 367 Angola Parrot | 30 <i>Psittacus solstitialis</i> |
| 317 Nootka Shrike | 49 Lanius Nootka | 368 Guarouba | 31 <i>Psittacus Guarouba</i> |
| 318 Boolboul Shrike | 50 Lanius Boulboul | 369 Mexican Guarouba | β. <i>Pf. Guarouba mexicanus</i> |
| 319 Black-headed Shrike | 51 Lanius melanocephalus | 370 Carolina Parrot | 32 <i>Psittacus carolinensis</i> |
| 320 Short-tailed Shrike | 52 Lanius brachyurus | 371 Alexandrine Parrot | 33 <i>Psittacus Alexandri</i> |
| 321 Red-tailed Shrike | 53 Lanius phoenicurus | 372 Rose-ringed Alexandrine Parrot | β. <i>Pf. Alexandri roseocollari</i> |
| 322 Pied Shrike | 54 Lanius doliatus | 373 Purple-ringed Alexandrine Parrot | γ. <i>Pf. Alexandri purpureocollari</i> |
| 323 Jacofe Shrike | 55 Lanius jocosus | 374 Double-ringed Alexandrine Parrot | δ. <i>Pf. Alexandri duplocollari</i> |
| 324 Rock Shrike | 56 Lanius infaustus | 375 Blue-headed Alexandrine Parrot | ε. <i>Pf. Alexandri cyanocephalus</i> |
| 325 Lesser Rock Shrike | β. <i>L. infaustus minor</i> | 376 Javan Alexandrine Par. | ζ. <i>Pf. Alexandri javanicus</i> |
| 326 Wreathed Shrike | 57 Lanius faustus | 377 Illinois Parrot | 34 <i>Psittacus pertinax</i> |
| | | 378 Leverian Parrot | 35 <i>Psittacus Leverianus</i> |

II. P I E S.

PARROT. v *PSITTACUS*.

* With long wedge-like tails.

- | | |
|---------------------|----------------------------------|
| 327 Ara | 1 <i>Psittacus Macao</i> |
| 328 Aracanga | 2 <i>Psittacus Aracanga</i> |
| 329 Military Maccaw | 3 <i>Psittacus militaris</i> |
| 330 Ararauna | 4 <i>Psittacus Ararauna</i> |
| 331 Blue Ararauna | β. <i>Pf. Ararauna caeruleus</i> |

I. RAPACIOUS BIRDS.

The upper mandible has an angular projection, or is dilated a little at each side, near the point.

I. VULTURE.—I. *VULTUR*. 41.

The bill is straight, and hooked at the end, having the base

It was found impossible to complete the Systematic Catalogue of Birds, without great risk of inaccuracy, until the whole of the class is printed off; in the mean time allowance is made, in the signatures and folios, for the insertion of the remainder of the Catalogue: This information was thought necessary to account for the apparent hiatus, and to direct the Bookbinder, for the present, that p. 432, being the last of Sheet H h h, is to be followed by p. 469, being the first of Sheet O o o: The sheets omitted [viz. I i i, K k k, L l l, M m m, N n n] will be delivered along with the last part of the Class of Birds, and must then be inserted in their proper place.

(To be inserted between page 432 and page 469 of Vol. i. Part ii.)

Asia, nor, except one species, the Carrion Vulture, do they ever inhabit the north of America. The species and varieties of this genus are distinguished from each other with great difficulty, and even the genus itself is by no means very easily separated from that which immediately follows. In this genus, besides the circumstances already noticed in the character, the legs and feet are mostly covered with large scales; the first joint of the middle toe is generally connected to that of the outer toe by a strong membrane; the crop, or crop, often hangs over the breast, especially when gorged with food; and the insides of the wings are lined with down.

I. Condour.—I. *Vultur Gryphus*. 1.

Of vast size, having a longitudinal warty excrescence on the crown of the head, and a naked throat.

V. Gryphus. Lath. ind. orn. i. 1. n. 1.—V. Gryps, Gryphus. Klein, av. 45. n. 8. Briss. av. i. 473. n. 12. Borowik. nat. ii. 62. n. 2.—Cuntur. Laet. amer. 401. Raj. syn. 11. n. 9.—Condor. Frez. Vol. I. O o o it.

it. 111. Condam. it. 175. Buff. oif. i. 184. Molin. chil. 236.—Condur. Lath. syn. i. 4. Id. sup. 1. Hawkesw. voy. i. 15.

Inhabits South America.—This bird is of enormous size, the wings measuring, when extended, nine, twelve, or even sixteen feet, from tip to tip; the largest quill-feathers of the wings, sometimes measure two feet and a half long, and the quill part an inch and a half in circumference. The body is of a black colour, with a white back; the neck is surrounded with a collar of longish white feathers; the chin is reddish; the head is clothed with brown down or wool; the eyes are black, with chestnut, or light reddish irides; the bill is black, with a whitish point; the legs and feet are black, and the claws are straightish; the tail is small. The *female* is considerably larger than the male, which it resembles, except in having a brown crest or tuft on the scrag, or hinder part of the neck.

The Condour builds its nest on the steepest mountains, under the shelter of some projecting shelf of a rock, in which the female lays two white eggs. It preys on calves, sheep, goats, and such like animals, and, when very much pressed by hunger, has been known to carry off children of ten years of age; nay two of them are said to be able to destroy and eat up the carcass of a cow at one meal. When alighting on, or rising from, the ground, it makes such a noise with the wings, as to terrify and almost deafen any one who happens to be near the place.

2

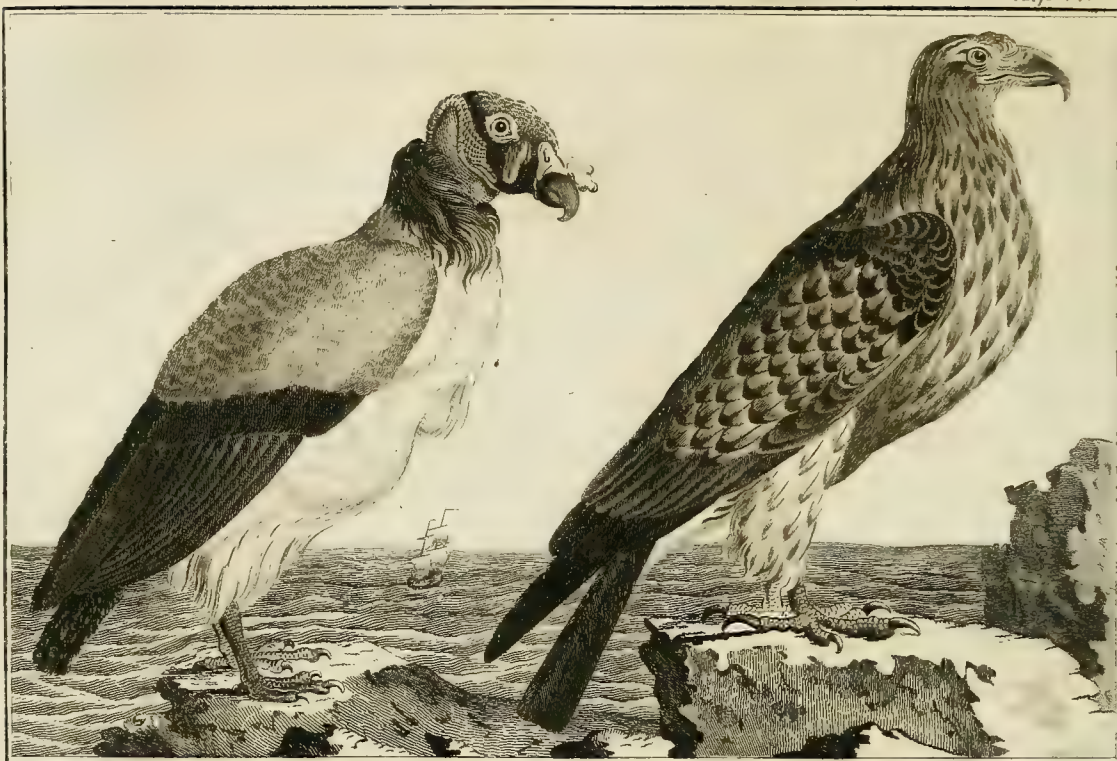
2. White-headed Vulture.—9. *Vultur leucocephalus*. 10.

Of a white colour, with black wing and tail quills, and having a collar of white feathers round the neck.

V. leucocephalus. Briff. av. i. 446. n. 9.—*V. albus*. Raj. syn. 10. n. 6. Will. orn. 35. n. 6. Id. angl. 67.—*V. albicans*. Klein, av. 44. n. 5. Id. ov. av. 18. t. 5. f. 3.—*V. percnopterus*. Haffelqu. it. 209. It. poségan. 27. Faun. aragon. 67. n. 1.—*V. aquilinus cinereus*. Gerin. orn. i. 47. t. 14.—Petit Vautour. Buff. oif. i. 164.—Vautour de Norvege. Pl. enl. 429.—Avoltoio bianco. Cett. uc. fard. 12.—*Vultur albicans*, Vautour de Norvege, Alimoche. Bom. dict. hist. nat. in voc.

Inhabits Sardinia, Aragon, and other parts of the south of Europe, likewise the northern parts of Africa, and the Levant, and has also been found in Norway.—This species is some inches more than three feet long; the tail and wings are of a moderate size; the head and upper parts of the neck are clothed with white down; the claws are black; the middle toe is covered with eleven distinct scales.

There is a considerable discrepancy between the descriptions of this species as given by Dr Gmelin, Mr Latham, and other naturalists; Mr Latham describes it as ‘of a sooty ash-colour with reddish spots, having the head, neck, and base of the tail white,’ and says, that it inhabits Asia, Africa, and the south of Europe; for which reason I have referred his description to a separate variety. According to Mr Bomare, the general colour is a dirty white, somewhat mixed with brown, having the primary wing quill-feathers black, and the rest of a brownish black or sooty colour, the head, neck, and maw being saffron coloured; he adds, that the legs are slender, and longer than those of most Vultures, with naked ash-coloured feet, and says that the animal is five feet in extent, and only two feet three inches long. Dr Gmelin is uncertain whether the species he describes may not be a variety of the *V. Percnopterus*, or rather of the *V. fulvus*. Amid such uncertainty in the descriptions of so many celebrated naturalists, all that has been here attempted is to give a clear view of their several opinions, without endeavouring to decide: The two following varieties are barely noticed by Dr Gmelin, while the next two are given on the authority of Mr Latham.—T.



Nº 7

Nº 39



Nº 209

Nº 189

3 β. Norwegian White-headed Vulture.—*V. leucocephalus norvegicus*.

Is almost entirely of a snowy whiteness; the head and neck being naked and reddish; having a yellow bill, with a remarkable black spot. Syft. nat. ed. Gmel. i. 248. n. 10.

4 γ. Sardinian White-headed Vulture.—*V. leucocephalus sardicus*.

Of mixed ash, brown, and greyish plumage, with black wing and tail quill-feathers. Syft. nat. ed. Gmel. i. 248. n. 10.

5 δ. Sooty White-headed Vulture.—*V. leucocephalus fuliginosus*.

The body is of a sooty colour, with reddish spots; the head, neck, and root of the tail, being white. Lath. ind. orn. i. 2. n. 4.

This variety is found in Asia, Africa, and the south of Europe.—From the remarkable difference between the snowy whiteness of the species, or variety, described by Dr Gmelin, which stands at the head of this article, and the sooty colour of this variety as described by Mr Latham, it appeared requisite to separate them at least into two varieties. This Sooty variety is probably the *Vultur percnopterus* of the Fauna aragonensis; it is two feet and a half long, and builds its nest in lofty rocks; the bill is black; the front and chin are naked, and covered with a yellowish wrinkly skin; the external margins of the wing quill-feathers are white or hoary, except those of the two outer primaries.

6 ε. Bengal White-headed Vulture.—*V. leucocephalus bengalensis*.

Of a dusky brown or blackish colour, the head and fore part of the neck being naked, and of a pale chesnut colour, and the shafts of the feathers on the lower parts of the body being white.

V. percnopterus femina. Haffelq. it. 209. Id. ed. angl. 194.—Bengal Vulture. Lath. syn. i. 19. t. 1. Id. sup. 3.—*V. leucocephalus, femina*. Lath. orn. i. 3. n. 4. β.—*V. bengalensis*. Syft. nat. ed. Gm. i. 245. n. 2.

Inhabits Asia, Africa, and the south of Europe, being found as far as Bengal.—This animal is two and a half feet long; the head and naked part of the neck are covered with brown wool or down; the legs and feet are of a blackish brown colour, with black claws; the bill is of a leaden colour, with a white point; the craw hangs over the breast. The eggs are of a dirtyish appearance.

This variety is considered as a distinct species of the genus by Dr Gmelin; and Mr Latham was formerly of that opinion. In his last publication, however, it is supposed to be only the female of the Sooty variety immediately preceding. Without pretending to decide the difference it is placed here as a variety.—T.

7 3. King Vulture.—3. *Vultur Papa*. 3.

Of a reddish white colour; the head and neck are naked, and the nostrils are surrounded with dentated fleshy warts, or tubercles.

V. Papa. Lath. ind. orn. i. n. 7.—*Vultur*. Albin. av. ii. 4. t. 4.—*V. monachus*. Klein, av. 46. n. 9.—*V. elegans*. Ger. orn. 302.—*Rex vulturum*. Briff. i. 470. n. 11. t. 36.—*Roi des vautours*.

Buff. oif. i. 169. t. 6. Pl. enl. 428.—Regina aurarum. Will. orn. 302.—Queen of the auras. Will. ed. ang. 390.—King of the Vultures. Edw. av. ii. t. 2. Lath. syn. i. 7.

Inhabits the hotter parts of America, and the West India Isles.—This species is about the size of a hen Turkey: The head and upper part of the neck are naked, and seem raw or excoriated; the space round the eyes is naked, and of a saffron yellow colour; a fillet of blackish woolly down furrounds the head, from the hind head forwards; the quill-feathers are black, verging to ash colour; the feet and point of the bill are red; the cere is orange coloured. This animal flies very high; it preys on serpents, lizards, rats, and such animals; and likewise devours putrid carcases, from which it acquires a very disagreeable fetor.

8

4. Arabian Vulture.—4. *Vultur Monachus*. 4.

Of a black colour, with a protuberant hind head.

V. Monachus. Lath. ind. orn. i. 5. n. 9.—V. arabicus. Briff. orn. vi. ap. 29. Id. 8vo. 138. n. 14.—Crested black Vulture. Edw. av. t. 290.—Arabian Vulture. Lath. syn. i. 8.

Inhabits Arabia.—This species of Vulture is larger than the Black Eagle; the head and neck are covered with ash coloured woolly down; the space round the eyes is white; the bill, having a black point, with the cere, and the feet, are bluish; the claws are black; the head is surmounted with a considerable protuberance behind; the shoulders are furnished with an elevated ridge of loose ash coloured feathers, into which the head is retracted when the animal sleeps.

9

5. Carrion Vulture.—5. *Vultur Aura*. 5.

Of a dusky black, or brown grey-colour, dashed with green and purple; having black quill-feathers, and a white bill.

V. Aura. Lath. ind. orn. i. 4. n. 8.—V. brasiliensis. Raj. av. i. 468. Ger. orn. i. 45. t. 13.—Vautour de Bresil. Buff. oif. i. 175. Pl. enl. 187.—Gallinazo. Ulloa, voy. ed. angl. 56. 196.—Carrion Vulture. Sloan. jam. ii. 294. t. 254. Brown, jam. 471. Damp. voy. ii. 67. Penn. arct. zool. ii. 191. n. 86. Lath. syn. i. 9. Id. sup. 2.—Turkey Buzzard. Catesb. car. i. t. 6. Clayton, in phil. trans. xvii. 991.—Urubu, Tzopilotl, Aura. Will. orn. 36. n. 2. Id. angl. 68. t. 3. Hernand. mex. 331.—Strunt-Vogel? Kolb. cap. ii. 136.—Corvus fylvaticus. Barrere, fr. equ. 129.—Carrion Crow. Sloan, jam. ii. 294.

Inhabits America, from Nova Scotia to Terra del Fuego; and is found in New-years islands.—This species is about the same size with the last, weighing about four pounds and a half, though it varies in size: The body is black, with an iridescence of purplish and green; the irides are mixed saffron yellow, and bluish; the head is small, and is covered with a naked wrinkly reddish skin, beset with black bristles; the nostrils are very large and pervious; the legs and feet are dirty flesh colour, with black claws. The Carrion Vulture is in a manner privileged in America, in consequence of its usefulness for destroying serpents, carrion, and the eggs of Alligators, and is often seen devouring the dead carcases of animals along with dogs, preserving the utmost harmony with each other; it has a most offensively fetid odour, and, when seized, it vomits up a quantity of most intolerably stinking stuff. It is by no means shy, from being seldom disturbed, and may be easily tamed; it sleeps in flocks at night, in the highest trees, or the summits of rocks, keeping the wings dishevelled,

as if to sweeten them from the putrid odour of their daily banquet. When pressed with hunger it will sometimes attack living animals, especially such beasts as have any fore upon them.

10

β. Black Carrion Vulture.—5. β. V. Aura niger.

Of a black colour, with brown wings, and an ash coloured bill. Molin. hist. nat. Chil. 235. Id. ed. gal. 245.

Vultur Jota. Lath. ind. orn. i. 4. n. 8. *β.* Syft. nat. ed. Gm. i. 247. n. 5. *β.*

Inhabits Chili.—This variety is equally offensive in its odour with the former; it is extremely lazy, unless when teased, and then emits a cry like that of a Mouse, but stronger; it builds among rocks or on the ground, constructing a nest of leaves and feathers, in which the female lays, for one brood, two whitish eggs looking as if sullied with smoke. When young it is entirely white, growing gradually darker with age, till almost entirely black, except the bill; the quill feathers, feet, and irides, becoming only brown.

11

6. Cinereous Vulture.—6. Vultur cinereus. 6.

Of a blackish brown colour, with somewhat ash coloured quill and tail feathers, the legs being covered with brown feathers.

V. cinereus. Lath. ind. orn. i. 1. n. 2. Briff. av. i. 453. n. 1. Will. orn. 35. n. 1. Raj. syn. 9. n. 1. Klein, av. 44. n. 4. Id. ov. av. 18. t. 5. f. 5.—Vautour, Grand Vautour. Buff. ois. i. 158. t. 5. Pl. enl. 425.—Cinereous, or Ash coloured Vulture. Lath. syn. i. 14.

12

β. Blackish Cinereous Vulture.—V. cinereus nigricans.

Of a blackish colour. Lath. ind. orn. i. 1. n. 2. *β.*

Inhabits Europe.—This species measures three feet six inches in length, and seven feet nine inches in the extent of the wings: The head, throat, and upper part of the neck, are covered with brown wool or down; under the throat is a tuft of longish feathers, resembling hairs, forming a kind of beard; the toes are yellow, with black claws. It mostly frequents, and builds its nest, in high mountains. The blackish variety of this species is sometimes found, but is more rare than the other.

13

7. Maltese Vulture.—7. Vultur fuscus. 8.

Of a brown colour, with blackish wing quills, the primaries being spotted with brown, and having white tips; the tail quills are greyish brown; the feet are naked.

V. fuscus. Lath. ind. orn. i. 5. n. 10. Briff. orn. i. 455. Id. 8vo. 130. n. 2.—Avoltajo Griffone. Cetti, uc. di fard. 3. G. 3.—Vautour de Malte. Buff. ois. i. 161. Pl. enl. 427.—Maltese Vulture. Lath. syn. i. 15.

Inhabits Europe, especially the island of Malta.—This species is between the size of the Common and Turkey Pheasants: The head is covered with brown wool; the feathers on the scrag are narrow; the bill is black; the feet are yellowish, with dark coloured claws. This species has a good deal of resemblance to the Aquiline Vulture, or *V. percnopterus*, N^o. 16. inasmuch that Dr Gmelin questions whether it may not be a variety of that species.

14

8. Black Vulture.—8. *Vultur niger*. 9.

Of a black colour, having brown quill and tail feathers; the legs are covered with black feathers.

V. niger. Briff. orn. i. 457. n. 4. Id. 8vo. 131. Raj. syn. 9. n. 2. Will. orn. 35. n. 2. Lath. ind. orn. i. 6. n. 11.—Swarthy Vulture. Charl. ex. 71. n. 4.—Black Vulture. Will. ed. angl. 66. Lath. syn. i. 16. n. 10.—Avoltojo nero. Cetti, uc. fand. 9. G. 9.

Inhabits Egypt and Sardinia.—This species is of a large size, exceeding that of the Golden Bearded Vulture: The head is covered with brown wool; the upper part of the neck is entirely naked, and white; the space round the eyes, and the legs and feet down to the toes, are covered with white woolly down; the whole body is black, with brown quill and tail feathers; the tongue is smooth at the edges; the first two inches of the bill is straight, the fore part is longer and hooked; the nostrils are round, and near a quarter of an inch in diameter. Dr Gmelin questions whether this Vulture may not be merely a variety of the Aquiline species.

15

9. Fulvous Vulture.—10. *Vultur fulvus*. 11.

Of a reddish grey, or tawny colour, on the upper parts of the body; the head, neck, and a collar round the neck, white; the quill and tail feathers black.

V. fulvus. Hablizl, ap. S. G. Gmelin, it. iv. 179. Pall. n. nord. beytr. iv. 58. Briff. orn. i. 462. n. 7. Id. 8vo. 133. Lath. ind. orn. i. 6. n. 12. Ger. orn. i. 43. t. 10. Raj. syn. 10. n. 7. Will. orn. 36. t. 4. f. 1.—Griffon. Buff. ois. i. 151.—Vulture. Alb. av. iii. t. 1.—Fulvous Vulture. Lath. syn. i. 17. Will. ed. ang. 67. n. 7.

Inhabits the mountains of Persia.—This species is larger than the *F. Aquila fulva*, or Ring-tail Eagle: The head and neck are covered with thick woolly down; the bill is bluish ash colour, having its base covered by a black cere, or naked skin; the lower part of the neck is surrounded with several rows of long, narrow, bristly feathers, of a reddish white colour; on the middle of the breast is a kind of pit, or hollow, covered with white down, and surrounded with long narrow reddish feathers; the feathers on the lower parts of the body are white towards the base and reddish at the tips. The legs, from the middle of the thighs downwards, are thickly covered on the inside with white down, and on the outside with long reddish feathers; the feet are of a leaden colour, having black claws.

16

10. Aquiline Vulture.—11. *Vultur Percnopterus*. 7.

The wing quills are black, having their outer edges, except those of the two outermost, of a hoary colour.

V. percnopterus. Gmel. it. iii. 364. t. 37. Borowsk. nat. ii. 65. Lath. ind. orn. i. 2. n. 3.—Percnoptere. Buff. ois. i. 149. Pl. enl. 426.—*V. aquilina*. Alb. av. ii. 3. t. 3.—Vulturine Eagle. Will. orn. 64. t. 4.—Alpine Vulture. Lath. syn. i. 12. Id. sup. 3.

Inhabits Egypt, Palestine, Syria, Caramania, Persia, and the south of Europe.—The *male* is entirely white, having black quill feathers, all of which, except the two outermost primaries of each wing, have their external webs edged with hoary. The *female* is of a brown colour, having the quill feathers edged like those of the male, except the four outermost primaries, which are of a uniform colour.

lour. The bill is black, its base being covered with a yellow cere; a liquid matter is constantly oozing from the nostrils; the legs and feet are naked.

17

β. Egyptian Aquiline Vulture.—11. β. *V. Percnopterus aegyptius*.

Of a reddish-ash colour, spotted with brown. Lath. ind. orn. i. 6. n. 3. β.

V. aegyptius. Briff. orn. i. 457. 3. Id. 8vo. 131. 3.—*V. facer aegyptius*. Aldr. av. i. 378. t. p. 379.—*Sacre egyptien*. Bel. oif. 110. t. p. 111. Buff. oif. i. 167.—*Egyptian Vulture*. Lath. syn. i. 13.—*Vautour Percnoptere*. Bom. dict. hist. nat. in voc.

Inhabits with the former.—According to M. Bomare, this variety is particularly distinguished from other Vultures by having a heart-shaped brown blotch, bordered with a narrow white line, on the breast or craw, just below a ruff, of long stiff feathers, which surrounds the lower part of the neck; the head and neck are naked and bluish, shining through a short white down; the cere and bill are black, the point of the latter being white. The male is three feet three inches long, the female three feet eight; the male eight feet in extent, the female nine.—These two varieties are of great use in the Levant, inasmuch that at Cairo in Egypt they are encouraged by having food laid down for them, because, by devouring every kind of putrid animal substance, they prevent the disgusting and noxious effluvia, which would otherwise be almost intolerable in that hot country; and formerly it was made a capital crime, by the laws of the Egyptians, to kill one. In Palestine they are likewise of great use by destroying the vast multitudes of mice which swarm in the fields, and which, without their assistance, would devour the whole fruits of the ground.

18

11. Crested Vulture.—12. *Vultur cristatus*. 12.

Has a prominent crest on the head; the body is blackish red, the breast being redder; the legs and feet are naked.

V. cristatus. Briff. orn. 132. n. 6. Lath. ind. orn. i. 6. n. 13.—*V. leporarius*. Raj. syn. 10. n. 4. Will. orn. 35. n. 4. Klein, av. 44. n. 2. Id. ov. av. 18. t. 5. f. 2. Ger. orn. i. 42. t. 9.—*Vautour à aigrettes*. Buff. oif. i. 159.—*Hare Vulture*. Will. ed. angl. 67. n. 4. Lath. syn. i. 17.

Inhabits Europe.—In size of body it equals the Osprey, and the wings are six feet in extent; the crest on the head is conspicuously erected like horns, when the animal is perched, or on the ground, but, when flying, it is not visible; the feet are yellow; the bill and claws are blackish; the tail is long and straight. Dr Gmelin expresses a doubt whether this animal should be considered as a Vulture, or as an Eagle. It is found in the thickest and most solitary forests, building its nest in the highest trees, in which the female lays eggs of the colour of clayey water; it flies and runs with great swiftness, and in both ways pursues hares, rabbits, the whelps of wolves, and young fawns, and even catches fish.

19

12. Barbary Vulture.—13. *Vultur barbarus*. 13.

Of a brown dusky colour, the under parts of a brownish white; the legs and feet are woolly, with leaden coloured toes, and brown claws.

V. barbarus. Lath. ind. orn. i. 3. n. 5.—*V. barbatus*. Briff. orn. 8vo. i. 137. n. 13.—*Bearded Vulture*. Edw. av. t. 106. Lath. syn. i. 11. n. 6.

Inhabits

Inhabits Africa, especially the coast of Barbary.—This species is about the size of the Ring-tailed Eagle, *Aquila fulvus*: The bill is of a purplish flesh colour, having a tuft of black feathers, like a beard, hanging down from the lower mandible; the eye brows are red, and the irides of the eyes are yellow; the greater part of the head is covered with white woolly down; the front, cheeks, and orbits, are black; the scrag is covered with long, narrow, pointed, black feathers.

20

13. Pondicherry Vulture.—*Vultur pondicerianus*.

Of a black colour, having the head and neck almost naked and of a scarlet colour, with red fleshy caruncles at the sides of the neck. Lath. ind. orn. i. 7. n. 14.

Vautour royal de Pondichery. Sonner. voy. ii. 182. t. 104.—Pondicherry Vulture. Lath. syn. sup. 6.

Inhabits India.—The body is about the size of a Goose; the bill is black, and the feet are yellow.

21

14. Indian Vulture.—*Vultur indicus*.

Of a brown colour, with pale stripes on the upper parts of the body; the head and neck are naked and reddish; the quill and tail feathers are black. Lath. ind. orn. i. 7. n. 15.

Grand Vautour des indès. Sonner. voy. ii. 183. t. 105.—Indian Vulture. Lath. syn. sup. 6.

Inhabits the coasts of India.—This species is about the same size with the last; it is exceedingly voracious, and feeds on fish and carrion; the bill is black; the head is covered with hairy down, the neck is entirely naked; the breast is covered with shortened feathers, as if cut at the ends.

22

15. Gingi Vulture.—*Vultur ginginianus*.

Of a white colour with black quill feathers, the bill and feet being grey. Lath. ind. orn. i. 7. n. 16.

Vautour de Gingi. Sonner. voy. ii. 184.—Gingi Vulture. Lath. syn. sup. 7.

Inhabits India, particularly the coast of Coromandel.—This species is about the size of a Turkey, and is, in India, called the Wild Turkey; the irides of the eyes are red.

II. FALCON.—2. *FALCO*. 42.

The bill is hooked at the end, and is covered at its base with a *cere*, or naked membranous skin: The head is covered with feathers which lie close on each other: The tongue is frequently cleft.

This is a rapacious race of animals, which are carnivorous, or feed almost entirely on animal food; they are not gregarious, and are very quick-sighted; they generally fly high, and build their nests in lofty

lofty places, often in inaccessible rocks, except a small number of species which have their nests on the ground. In general the birds of this genus have the bills more crooked than those of Vultures; the nostrils are small, mostly oval, and are situated in that part of the bill which is covered with the cere or naked skin: The legs and feet are scaly; the middle toe is slightly connected, as far as the first joint, to the outmost toe; the claws are large, strong, very sharp, and much hooked. In general the females are larger than the males, which is supposed necessary for procuring the food of their young ones.

Dr Gmelin separates this genus into four subgenera, or lesser divisions, which are adopted in this edition, including the first species, which he makes a separate subdivision on account of the great length of its legs, with his second subgenus, because it has some relation to the Vultures, and is arranged along with them by Mr Latham.—T.

* BASTARD-EAGLES.—*GYPÆETI*.

The bill is hooked only towards the point, and its base is garnished with a beard of longish extended bristles.

This division of the genus holds a middle rank between Vultures and Eagles, both in general appearance and manners; the head is not so naked as in the Vultures, and the bill is not so much hooked as that of the Eagle; like eagles they destroy living animals, but frequently devour dead carrion like vultures; accordingly, by some authors they are ranked with the one, and by some with the other genus.

23

1. Secretary.—1. *F. Gypæetus serpentarius*. 33.

Of a dark leaden colour, having a crest on the hind head; the legs are very long; the wing quills, vent feathers, and thighs, are black; the two middle tail quills are longer than the rest.

Vultur serpentarius. Lath. ind. orn. i. 8. n. 21.—*Falco serpentarius*. Syst. nat. ed. Gmel. p. 250. n. 33. Miller, ill. t. 28. A. B.—Secretary Vulture. Lath. syn. i. 20. n. 17. t. 2. sup. p. 4.—*Grus capensis*. Pet. gaz. t. 12. f. 12. ?—*Sagittarius*. Vossmaer, monogr. t. 8. Phil. trans. lxi. 55. t. 2.—*Secrétaire*. Sonner. voy. 87. t. 50.—*Messager du cap*. Pl. enl. 721.—*Slaangen-vraater*. Sparm. voy. i. 154.

Inhabits the interior parts of Africa and Asia, and the Philippine isles.—This animal is about three feet high when erect; its legs are remarkably long, like those of the Grallae, or Waders; the claws are short, black, and hooked, but not very sharp; the bill is black, with a white cere, and is not garnished with the bristly beard mentioned as one of the characters of the subgenus; the space round the eyes is naked and orange coloured; the irides are pale ash coloured; the tail is rounded, having its two middle feathers much longer than the rest, and the tips of all its feathers are white; the crest at the back of the head may be erected and depressed at pleasure. The Secretary is very readily made tame, and, in its natural state, preys on quadrupeds of the order of Glires, and on amphibious animals.

24

2. Harpy.—2. *F. Gypæetus Harpyja*. 34.

The head is surmounted with a crest of long feathers; the under part of the body is variegated.

Vultur Harpyja. Syft. nat. ed. xii. 121. n. 2.—Falco Harpyja. Syft. nat. ed. Gmel. 211. n. 34. Lath. ind. orn. i. 9. n. 1.—Aquila cristata brasiliensis. Briff. av. i. 446. Raj. fyn. 161. Klein, av. 42. Will. orn. 32. t. 4. D^o. angl. 63.—Yzquauhtli. Hern. mex. 34. Raj. av. 161. Will. orn. 299. D^o. angl. 388.—Urutaurana. Marcgr. bras. 203. t. p. 204. Raj. av. p. 7.—Oronooko Eagle. Brown, jam. 471.—Crested Eagle. Will. orn. 63. t. 4.—Crested Vulture. Lath. fyn. i. 6.

Inhabits the warmer parts of America.—This species is almost as large as a Sheep, and is said to be able to cleave a man's skull with one stroke: The back, neck, and crest, are black; the under parts of the body are variegated with black, white, and tawny; the hind part of the head is covered with long feathers, which are frequently erected into a crown-like crest; under the maw the feathers are long and white, and, when irritated, these hang down almost to the ground; the under parts of the wings and tail are spotted with black and white; the eye is provided with a membrana nictitans.

25

3. Black Harpy.—3. *F. Gypaetus Jacquini*. 35.

The head is covered with numerous long feathers; the feet are naked; the under parts of the body are white.

Vultur coronatus. Jacqu. beyt. der voeg. 15. n. 11.—Crowned Vultur. Lath. fyn. sup. 5.—Falco Jacquini. Syft. nat. ed. Gmel. i. 251. n. 35.—Falco Harpyja cristatus. Lath. ind. orn. i. 9. n. 1. β.

Inhabits the mountains of New Granada, in Spanish America.—This species is supposed by Dr Gmelin to be near a kin to the Harpy, and by Mr Latham to be a variety of that species, on which account the same name is here given to both. When sitting, which it does in an erect posture, it is two feet and a half high; the back, wings, greatest part of the neck, and the bill, are black; the head is of a reddish ash colour, and is provided with a tuft of a similar colour composed of numerous feathers near six inches long; this tuft in general lies flat, but is erected into a crown or crest when the animal is irritated; the tail is long, and of a white colour, with transverse black bands; the legs and feet are naked and yellow, with black claws. Though naturally fierce, this animal may be tamed when caught young.

Though using almost the exact words employed by Dr Gmelin, Mr Latham reverses the descriptions of these two last described animals; adding, however, that the head of the former is of a dull or russet blue colour, and that the thighs of the latter are spotted with white.—T.

26

4. Tawny Bastard-Eagle.—4. *F. Gypaetus ambustus*. 36.

Of a pale tawny colour; the bill has an extensive cere, with naked straps; the legs and feet are bluish.

Falco ambustus. Syft. nat. ed. Gmel. i. 252. n. 36.—Vultur ambustus. Lath. ind. orn. i. 8. n. 18.—Tawny vulture. Brown, illust. 2. t. 1. Lath. fyn. i. 19.

Inhabits Falkland's islands.—This species is two feet four inches long: The bill is short, thick, and dusky; its base is covered with an ample cere or membrane, which is garnished with bristles, and the straps, or spaces between the base of the bill and the orbits on each side, are naked; the chin is furnished with a beard of long thin feathers; the tail is dirty white, barred with brown; the feet are bluish, and the claws are not much hooked.

27. 5. Angola Bastard-Eagle.—5. *F. Gypaetus angolensis*. 37.

Of a white colour; the cere is bluish; the orbits are naked and crimson coloured; the wing coverts, and base of the tail, are black.

Falco angolensis. Syft. nat. ed. Gmel. i. 252. n. 37.—*Vultur angolensis*. Lath. ind. orn. i. 7. n. 17.—Angola Vulture. Penn. wales. 228. t. 19. Lath. fyn. i. 18.

Inhabits Angola.—This animal is nearly as large as a Goose: The bill is long, only hooked at the end, and whitish; the eyes are surrounded with a broad naked space of a crimson colour, like raw flesh, and the irides are yellowish; the breast or maw is protuberant; the legs and feet are scaly and dirty white.

There is some difference in the descriptions of Dr Gmelin and Mr Latham; the former says that the primary coverts of the wings and the base of the tail are black, the outermost coverts being spotted with white, and the tail having a white tip; Mr Latham informs us that the whole quill feathers of the tail, and its base, are black.—T.

28. 6. Bearded Bastard-Eagle.—6. *F. Gypaetus barbatus*. 38.

Of a whitish fiery-red colour, brown on the back, having a black stripe above and below each eye.

Falco barbatus. Syft. nat. ed. Gmel. i. 252. n. 38.—*Vultur barbatus*. Syft. nat. ed. xii. i. 123. n. 6. Ger. orn. i. 49. t. 11. Bor. nat. ii. 64.—*Vultur alpinus*. Briff. orn. i. 464. 8. Id. 8vo. i. 133.—*Vultur barbatus*. Lath. ind. orn. i. 3. n. 6.—*Gypaetos grandis*. Storr, Alpenr. i. 69.—*Pernopterus*, *Gypaetos*. Raj. fyn. 8. n. 10. Will. orn. 33. t. 4. Aldr. orn. i. 216. t. p. 217. 219. Gefn. av. 199. Alb. av. ii. 2.—Laemmergeyer. Andrea, Brief aus der Schweiz. 195. t. 12. Decouv. ruff. ii. 385. t. p. 387.—*Avoltoio barbato*. Cett. uc. fard. 16.—*Vulturine Eagle*. Alb. ii t. 3.

29. β. Golden Bastard-Eagle.—6. β. *F. Gypaetus barbatus aureus*.

Of a reddish colour, black on the back, the head and upper part of the neck being reddish white, the quill and tail feathers brown.

Falco barbatus aureus. Syft. nat. ed. Gmel. i. 252. n. 38. β.—*Vultur aureus*. Gefn. av. 783. t. 781. Aldr. orn. i. 277. f. p. 276. Briff. av. i. 458. 5. Id. 8vo. 132. Raj. av. 10. n. 5. Will. orn. 35. n. 5. Hablizl, n. nord. beytr. iv. 84. S. G. Gm. it. iv. 185.—*Vultur baeticus*. Aldr. orn. i. 273. f. p. 274. Raj. av. 10. n. 3.—*Vultur barbatus rufus*. Lath. ind. orn. i. 3. n. 6. β.—*Chestnut Vulture*. Will. ed. angl. 66. n. 3.—*Golden Vulture*. Will. orn. ang. 67. n. 5. t. 4. Lath. fyn. i. 18.

30. γ. Persian Bastard-Eagle.—6. γ. *F. Gypaetus barbatus persicus*.

Has a bluish cere; the legs and feet, and the under parts of the body, are chestnut, mixed with white; and the tail is ash coloured.

Falco barbatus magnus. Syft. nat. ed. Gmel. i. 252. n. 38. γ.—*Falco magnus*. S. G. Gmelin, it. iii. 365. t. 38.—*Vultur barbatus persicus*. Lath. ind. orn. i. 4. n. 6. γ.

Inhabits the Alps; the varieties β. and γ. are found in the mountains of Persia.—This species is of great size, being four feet long, and near ten feet in extent; the bill is of an ash colour, mixed with

reddish, it is fringed at the sides, and garnished underneath with stiff black bristles, it is straightish and hooked at the end, which is furrowed on each side; the nostrils are large, oval, and hid in strong black bristles; the feet are hairy down to the toes, having strong black claws, not much bent; the wings have each twenty-eight bright ash coloured quill feathers, and the tail has twelve quills, which are ash coloured in the middle.

The several varieties of this species build their nests in the holes and caverns of inaccessible rocks, laying three or four eggs each brood; they keep in small flocks in the highest parts of the mountains, preying on alpine animals, such as Chamois, Goats, and Lambs, and are even said to attack men when asleep; they likewise feed on dead carcases. In general external appearance, in keeping together in flocks, and in their appetite for carrion, these animals resemble the Vulture tribe; but in other respects, such as their courage, preying on living animals, and by having the head and neck covered with feathers, they resemble the Eagles.

31

7. Cinereous Bastard-Eagle.—7. *F. Gypaetus Albicilla*. 39.

Has a yellow cere and yellow feet; the plumage is light cinereous; the quill feathers of the tail being white, the middle ones having black tips.

Falco albicilla. Syft. nat. ed. Gmel. i. 253. n. 39. Faun. groenl. 53. Lath. ind. orn. i. 9. n. 2.—Vultur albicilla. Syft. nat. ed. xii. 123. n. 8. Faun. suec. 55. Brun. orn. 12.—Aquila Albicilla. Briff. av. i. 427.—Pygargus, Albicilla, Hirundinaria. Bell. av. 15. Gefn. av. 205. Raj. av. 7. n. 5.—Grand Pygargue. Buff. ois. i. 99. Pl. enl. n. 411.—White-tailed Eagle. Will. orn. angl. 61.—Cinereous Eagle. Penn. BRIT. ZOO. i. n. 45. t. 18. Arct. zool. ii. 214. Lewin, brit. birds, i. t. 4. Lath. syn. i. 33. n. 8. Id. sup. 11.—Braunfahler Adler. Frisch, t. 70.—Fiske Orn. Brunnick, n. 12.—Elo. hist. Kamtschatk. 501.

Inhabits Europe, particularly Scotland and its islands.—This species is about the size of a Turkey, being two feet nine inches long; it feeds much on fish, and even on the young of seals, but in this attempt it is often destroyed, by fixing on old ones, which dive into the water and drown it; it likewise preys on various kinds of birds, especially those which dive for fish, which it watches with great attention, and catches as they rise to the surface. The body and wings are cinereous, or ash coloured, mixed with brown; the head and neck are pale ash; the irides and bill pale yellow; the base of the bill is longish; the space between the nostrils and orbits is bluish and almost naked, being interspersed with a few bristles; the tail is white; the legs are bright yellow, and covered from below the knees with down, and the feet have black claws. The Greenlanders use the skins of this species for cloathing, and either kill them with bows and arrows, or catch them in nets, or when stupified by gorging themselves with the fat of seals, which is left for that purpose.

32

8. Plaintive Bastard-Eagle.—19. *F. Gypaetus plancus*. 45.

The hind head is crested; the sides of the head and neck are naked; the breast and upper parts of the body are barred with brown and white, the under parts being white; the tail is white, with black transverse bands. Miller, illust. t. 17. Cook, voy. ii. 184. t. 32.

Falco plancus. Syft. nat. ed. Gmel. i. 257. n. 45.—Vultur plancus. Lath. ind. orn. i. 8. n. 19.—Plaintive Eagle. Lath. syn. i. 34.—Plaintive Vulture. Lath. syn. sup. 4.

Inhabits

Inhabits Terra del Fuego.—This animal is about two feet and a half long ; it is considered by Mr Latham as a Vulture, and by Dr Gmelin as an Eagle, for which reason it is placed in this intermediate subdivision : The bill is black, having the cere extending almost to the point ; that membrane, the space round the orbits, and the naked sides of the head, or straps, with the legs and feet, are orange coloured or yellow ; the wings are brown ; the tip of the tail and the claws are black.

33

9. Cheriway.—9. *F. Gypaetus Cheriway*. 40.

The hind head has a rusty crest ; the body is rusty, with a whitish head, yellow feet and legs, and a rose coloured cere. Jacquin, beytr. 17. n. 12. t. 4.

Falco Cheriway. Syft. nat. ed. Gmel. i. 254. n. 40.—Vultur Cheriway. Lath. ind. orn. i. 8, n. 20.—Cheriway Vulture. Lath. syn. sup. 5.

Inhabits the island of Aruba or Amba, on the coast of Venazuela, in Spanish America.—The crest is composed of long feathers, and it does not appear that the Cheriway has the power of erecting it ; the bill is blue ; the head and neck are yellowish ; the cere and naked orbits are rose coloured ; the quill feathers of the wings are very long and blackish ; the tail is longer than the wings, and is mostly blackish, the two intermediate quill feathers being barred with white ; the base of the tail is white ; the claws are black.

** EAGLES.—*AQUILÆ*.

These are larger in size than the animals of the succeeding subdivision, and their legs are for the most part rough.

The birds arranged under the subdivisions of *Eagles* and *Hawks*, differ from the *Bastard-eagles* in preying on living animals, while the last prefer carrion and dead carcases, like the *Vultures* : Eagles feed chiefly on sheep, hares, squirrels, water-fowl of various kinds, serpents, and fish ; whilst Hawks mostly prey on small birds and minute quadrupeds ; both fly very high, so as frequently to become invisible, and often remain suspended in the air, hovering motionless on the wing in quest of prey, which they see at a prodigious distance, having the sense of vision in a most exquisite degree, and they pounce down upon their prey with incredible swiftness, more like the effect of a projectile force than of voluntary motion : They mostly live entirely solitary, except in the breeding season ; they are said to abstain from preying on birds, especially domestic fowls, during the hatching season, as if by agreement to allow these to make their nests, to hatch, and to bring up their young ones ; their gastric juice is excessively acrid, and they can abstain from food for a considerable length of time, are very voracious, and are killed by eating bread ; they vary considerably in size and external appearance, from age and difference of sex, which renders it very difficult to arrange them properly in system, but in general the females are larger and stronger than the males.

The subdivision into Eagles and Hawks is scarcely legitimate, as the limits cannot be pointed out with any tolerable accuracy, it is however retained in this edition on the very respectable authority of Dr Gmelin.—T.

34

1. Crowned Eagle.—8. *F. Aquila coronata*. 1.

The cere is rust coloured ; the legs are covered with white wool, spotted with black ; the breast is reddish, and the sides are barred with black.

Aquila

Aquila africana cristata. Briss. av. i. 448.—Crowned Eagle. Edw. av. iii. 31. t. 224. Lath. Syn. i. 27.—*Falco coronatus*. Syst. nat. ed. Gm. i. 253. n. 1. Lath. ind. orn. i. 11. n. 6.

Inhabits the east coast of Guinea.—The general colour is brown, the under parts being white, with round black spots; the upper part of the tail is dark ash coloured, barred with black; the feathers on the crown of the head are longish, and may be raised or depressed like a crest; the forehead and space round the eyes are whitish; the irides are orange coloured; the bill is rusty; the toes are orange coloured, and the claws black.

35

2. Chilese Eagle.—10. *F. Aquila Tharus*. 41.

The cere and legs are yellow; the body is blackish white; and the hind head is crested. Molin. hist. nat. chil. 234.

Is very common in Chili.—It is about the size of a large Capon; the head is furnished with a crest of black feathers, of which the outer range is longer than the rest; the bill is whitish; the body of the male is whitish, spotted with black, while the female is smaller and greyish; the quill feathers of the wings and tail are tipped with black; the feet are scaly, with very strong claws. This species builds on very high trees, forming its nest of tender twigs, wool, hair, and feathers, and laying five eggs each brood; it feeds on poultry, and on the carcases of dead animals, approaching in this circumstance to the manners of the Vultures and Bastard-eagles.

36

3. Common Eagle.—11. *F. Aquila Melanaetos*. 2.

Has a yellow cere; the legs are somewhat downy; the body is dark rusty brown, almost blackish, with yellow streaks.

Melanaetos, f. *Aquila valeria*. Gefn. av. 203. Aldr. orn. i. 197. f. p. 199. 200. Raj. av. 7. n. 4. Alb. av. ii. 2. t. 2. Briss. av. i. 434.—*Falco Melanaetos*. Syst. nat. ed. Gmel. i. 254. n. 2. Will. orn. 30. t. 2. Klein, av. 41. n. 4. Id. ov. av. 18. t. 5. f. 1. Phil. transf. lvii. 346. Ger. orn. i. 37. t. 3. Borowsk. nat. ii. 68. n. 3. Lath. ind. orn. i. 10. n. 3.—*Aigle commune*. Buff. ois. i. 86. pl. enl. 409.—Schwartz-braune Adler. Frisch, t. 69.—Black Eagle. Will. orn. ang. 61. t. 2. Albin. ii. t. 2. Arct. zool. ii. n. 87. BRIT. ZOO. i. n. 43. Lath. syn. i. 28. sup. 8.

Inhabits Europe and North America.—This species is two feet ten inches long: The exterior webs of the tail feathers are white with black spots, the inner webs and the tips are blackish; the thighs are dirty white, the toes yellowish, and the claws black; the bill is of a horn colour verging to blue; the irides are chestnut coloured. The eggs, according to Klein, are dirty white, marbled with rusty clouds, which run together.

37

4. German Eagle.—12. *F. Aquila Glaucoptis*. 42.

The cere, and somewhat downy legs, are citron yellow; the back and breast are brown; the head and back of the neck are yellowish white with brown streaks; the wing quill feathers are black. Merrem, beyt. ii. 25. t. 7.

Inhabits the mountains of Dransberg, near Goettingen.—Is about twenty-one inches long; the bill is bluish grey, having the inside of the mouth and the tongue rose coloured; the tongue is fleshy, somewhat

somewhat horny at the edges, and scarcely split at the point; the nostrils are large, egg-shaped, having some black bristles placed near them; the irides are hoary, mixed with yellow; the fore-head is marked with brown semilunar spots; the thighs are short, and covered with soft feathers, the fore part of the legs and feet being somewhat downy, and having black claws; the tail is reddish brown above, and dirty white below, having six narrow black stripes on each surface.

38

5. Bald Eagle.—13. *F. Aquila leucocephala*. 3.

The bill, cere, and somewhat downy legs, are yellow; the body is brown; the head, neck, and tail, are white.

Falco leucocephalus. Syft. nat. ed. Gm. i. 255. n. 3. Lath. ind. orn. i. 11. n. 5. Ger. orn. i. 40. t. viii.—*Aquila leucocephalos*. Briff. av. i. 423.—Pygargue. Buff. ois. i. 99. Pl. enl. 411.—White-headed Eagle. Penn. arct. zool. ii. 196. n. 89.—Bald Eagle. Lath. syn. i. 29. sup. 9. Catesb. carol. i. t. 1.

Inhabits the northern parts of Europe, Asia, and America.—This species is about three feet three inches long, weighing nine pounds, and, though small, has great spirit; it builds in large decayed cypresses or pine trees which hang over the sea, sometimes, as in Beerings isle, on cliffs near the shore; it preys on lambs, fawns, pigs, and fish, which last it often takes from the Osprey, pursuing that bird, when it has caught a fish, till it drops its prey, which it catches with astonishing dexterity in the air while falling; and often attends fowlers and seizes the game they have shot: The nest is very large, near six feet wide, often very numerous in one place, like a rookery, and extremely fetid from the remains of the prey; they breed often, laying two eggs at a time, and sometimes lay a second time in the same nest before the first brood is fully fledged. The colour of the body is a dark chocolate brown, with white head, neck, and tail; the bill is yellow, and the irides white.

39

6. Osprey.—14. *F. Aquila Ossifraga*. 4.

The bill is bluish; the cere and half downy legs are yellow; the body is rusty brown; the inner edges of the tail quills are white.

Falco Ossifragus. Syft. nat. ed. Gm. i. 255. n. 4. Lath. ind. orn. i. 12. n. 7. Muller, n. 60. Borowk. nat. ii. 69. n. 4.—*Aquila Ossifraga*. Briff. orn. i. 125. n. 9. Klein, av. 41. n. 5.—*Aquila marina*. Cetti, uc. fard. 28.—*Ossifraga*. Gefn. av. 263. Aldr. orn. i. 222. t. p. 225. 228. Brunn. orn. 13.—*Haliaetus*, f. *Ossifraga*. Raj. av. 7. n. 3.—Orfraye, Orfraie, Ossifrague, or Grand Aigle de mer. Buff. ois. i. 112. t. 3. pl. enl. n. 112. 415.—Osprey or Sea Eagle. Will. orn. angl. 59. t. 1. BRIT. ZOOL. i. n. 44. t. 17. Arct. zool. ii. 194. n. 86. Lath. syn. i. 30. n. 4. sup. 9. Lewin, brit. birds, i. t. 1.

Inhabits the sea coasts of Europe, Asia, and America.—This species is about the size of a Turkey, being about three feet four inches long, but is larger considerably in America and northern Asia than in Europe; it lives almost entirely by catching fish, but sometimes preys on sea-fowl, land birds, and young seals; the plumage on the head, neck, and back, is brown edged with dirty white; the chin is white; the coverts of the wings are brown clouded with darker; the wing quill feathers are blackish; the breast and belly are brown, spotted with white; the tail is dusky, the interior edges of its quill feathers, the shafts, and the coverts being white; the legs are yellow, and have hardly any
down

down below the knees: The colour of the female is more rusty, or a yellower brown, than that of the male. Dr Gmelin considers the Osprey as having considerable resemblance to the next species.

40

7. Golden Eagle.—15. *F. Aquila Chrysaëtos*. 5.

The bill is bluish, with a yellow cere; the legs are brownish, or rusty yellow, and downy; the body is mixed brown and rush colour; the tail is dusky brown or blackish, clouded with ash colour at the base.

Falco Chrysaetos. Syft. nat. ed. Gm. i. 256. n. 5. Lath. ind. orn. i. 12. n. 8.—*Aquila germana*. Gefn. av. 168.—*Aquila chrysaetos*. Raj. av. 6. n. 1. Aldr. orn. i. 111. f. p. 114. 115. Muller, n. 59. Kramer, 325. Borowf. nat. ii. 66. t. 2. Gerin. orn. i. 36. t. 2.—*Aquila aurea*, f. *Chrysaetos*. Briff. av. i. 431. n. 7.—Grand Aigle. Buff. ois. i. 76. pl. enl. 410.—Gold Adler. Wirfing. voy. t. 45.—Orn. Faun. suec. n. 54.—Golden Eagle. Penn. BRIT. ZOOL. i. 161. t. 16. Arct. zool. ii. 214. A. Pitt. mem. t. p. 182. Lewin, brit. birds. i. t. 2. Lath. fyn. i. 31. sup. 10.

Inhabits Europe and northern Asia, particularly the Uralian deserts, and southern mountains of Siberia.—This species weighs twelve pounds, and measures three feet long, and near seven feet and a half between the tips of the wings; but it is found of different sizes; the tail is white beneath, and black at the tip; the legs are covered with feathers down to the toes. In fine weather, this species flies extremely high, but comes nearer to the earth before storms.

41

8. Tawny Eagle.—16. *F. Aquila fulva*. 6.

The cere is yellow; the legs are downy and rusty brown; the back is brown; the tail has a white transverse band.

Falco fulvus. Syft. nat. ed. Gm. i. 256. n. 6. Lath. ind. orn. i. 10. n. 4. Georg. voy. 164. Decouv. ruff. i. 89. ii. 142.—*Aquila*. Briff. av. i. 419. Aldr. orn. i. 17. Dodart, act. iii. 89. t. 49.—*Chrysaetos*, f. *Aquila fulva*. Raj. av. 6. n. 2. Will. orn. 28. Ger. orn. i. 35. t. 1.—*Aigle commun*. Buff. ois. i. 86. pl. enl. 409.—Black Eagle. BRIT. ZOOL. i. n. 43.—Ring-tailed Eagle. Will. orn. ang. 59. Lewin, brit. birds. i. t. 3. Id. i. t. 1. (ov.) Lath. fyn. i. 32. n. 6. sup. 10.

42

β. Canadian Tawny Eagle.—16. β. *F. Aqu. fulva canadensis*.

The tail is white with a brown tip.

Falco canadensis. Syft. nat. ed. x. 88. Id. ed. xii. 125. n. 6. β. Id. ed. Gm. i. 256. n. 6. β. Lath. ind. orn. i. 11. n. 4. β.—*Aquila americana*. Ger. orn. i. 40. t. 7.—White-tailed Eagle. Edw. av. i. t. 1. Lath. fyn. i. 32. n. 6. A. Voy. to huds. bay. iii. 54. t. 2.

These two varieties inhabit Europe, North America, and Northern Asia.—They build in lofty and inaccessible rocks; are of a very docile nature, and are trained for the chase of hares, foxes, antelopes, and wolves, by several Tartar tribes, as is mentioned by Marco Polo and other travellers; and the quill feathers of their tails are in great esteem among the Tartars for mounting their arrows. The fore-head, between the eyes and nostrils, is naked; the breast is marked with triangular white spots; the legs are feathered down to the toes. This species so nearly resembles the Common Eagle, No. 36. as to be suspected, by Dr Gmelin, to be the female of that species.

43

9. White-bellied Eagle.—17. *F. Aquila leucogaster*. 43.

Of a white colour; the back, wings, and tail, being dusky brown; the tip of the tail is white; and the legs are yellow.

Falco leucogaster. Syft. nat. ed. Gm. i. 257. n. 43. Lath. ind. orn. i. 13. n. 9.—White-bellied Eagle. Lath. syn. i. 33. n. 7. a.

Inhabits North America.—Is about two feet nine inches long; the bill is large, and of a brownish yellow colour; the claws are black.

44

10. Japonese Eagle.—18. *F. Aquila japonensis*. 44.

The cere is dusky, and the feet yellow; the body is brown, varied with rust colour; the wing and tail quills are dusky, with rusty spots.

Falco japonensis. Syft. nat. ed. Gm. i. 257. n. 44. Lath. ind. orn. i. 13. n. 10.—Japonese Eagle, or Hawk. Lath. syn. i. 33. n. 7. b.

Inhabits Japan.—This species is scarcely two feet long; the bill is narrow, blue at the base, blackish at the tip, and yellowish underneath; the fore-head is buff coloured; the feathers on the rest of the head and on the body are brown with rusty tips; the chin is white, with black streaks, and surrounded with a femilunar black mark; the feathers on the breast and belly are edged with yellowish white; the claws are large and black.

45

11. American Eagle.—20. *F. Aquila americana*. 46.

The cere, and downy legs, are yellow; the head, neck, and breast, are dusky ash colour; the back, belly, wings, and tail, are black; the knees have a transverse black band.

Falco americanus. Syft. nat. ed. Gm. i. 257. n. 46. Lath. ind. orn. i. 13. n. 12.—Black-cheeked Eagle. Lath. syn. i. 35. n. 10. Robert, ic. av. Arct. zool. ii. 196. n. 88.

Inhabits North America.—Is about the same size with the Tawny Eagle, N^o. 41. The bill is of a dull, or blackish, blue colour.

46

12. White Eagle.—21. *F. Aquila alba*. 47.

Is entirely white.

Falco albus. Syft. nat. ed. Gm. i. 257. n. 47.—Falco cygneus. Lath. ind. orn. i. 14. n. 16.—Aquila alba. Briff. orn. i. 424. n. 3. Id. 8^o. i. 123. n. 3.—Aquila alba cygnea. Klein, av. 42. n. 7.—White Eagle. Lath. syn. i. 36. n. 12. Charl. onom. 63. n. 9.

Inhabits the Alps, and the borders of the Rhein.—This species is about the size of the Golden Eagle, N^o. 40. of which Dr Gmelin suspects it may be only a variety.

47

13. Louisiana Eagle.—22. *F. Aquila candida*. 48.

Is entirely white, with black tips to the wings.

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Falco

Falco candidus. Syft. nat. ed. Gm. i. 258. n. 48. Lath. ind. orn. i. 14. n. 17.—White Eagle. Arct. zool. ii. 197. n. 90. Du Pratz, louif. ii. 75.—Louisiane white Eagle. Lath. fyn. i. 36. n. 13.

Inhabits Louifiana.—This very rare and beautiful species is rather smaller than the foregoing; it is in high estimation among the native Americans, who ornament the Calumet, or Pipe of peace, with its wings.

48

14. Small Eagle.—23. *F. Aquila naevia.* 49.

The cere, and downy legs, are yellow; the body is of a rusty brown colour, spotted with white below the wings.

Falco naevius. Syft. nat. ed. Gm. i. 258. n. 49. Lath. ind. orn. i. 14. n. 18.—*Aquila naevia.* Briff. orn. 122. n. 4. Frisch. t. 71.—Petit Aigle. Buff. ois. i. 91.—Rough-footed Eagle. Charl. onom. 63. n. 6. Lath. fyn. i. 37. n. 14.

Inhabits Europe.—Is about the size of a large Cock, being somewhat more than two feet seven inches long: The under coverts of the tail are white; according to Mr Latham, the tail quill feathers are white at the base and tips; the irides are yellow; the claws are black. This species lives chiefly on quadrupeds of the order of Glires.

49

15. Spotted Eagle.—24. *F. Aquila maculata.* 50.

The cere, and downy legs, are yellow; the body is rusty brown on the upper, and full brown on the under parts.

Falco maculatus. Syft. nat. ed. Gm. i. 258. n. 50. Lath. ind. orn. i. 15. n. 19.—*Aquila Clanga.* Klein, av. 41. n. 6.—Planga, Clanga. Arist. hist. an. ix.—Morphnos, Clanga, Anataria. Will. orn. 63. Raj. av. 7. n. 7.—Spotted Eagle. Lath. fyn. i. 38. n. 15.—Crying Eagle. Arct. zool. ii. 215. C.

Inhabits Europe, Asiatic Russia as far as Kamtschatka, Arabia, and Persia.—Is about two feet long: The scapulars and wing coverts are elegantly varied with oval white spots, which are large on the greater coverts; the back is spotted with buff colour; the belly and breast are streaked longitudinally with buff, or dull yellow; the bill is large and dusky; the claws are black; the tail is dark brown, tipped with dirty white; the primary wing quill feathers are dusky, the ends of the greater ones being white.

50

16. White-tailed Eagle.—25. *F. Aquila albicauda.* 51.

The cere, and naked legs, are yellow; the head and neck are ash coloured, tinged with chestnut; the upper part of the body is dusky rust colour, the under parts rusty and blackish; the tail is white.

Falco albicaudus. Syft. nat. ed. Gm. i. 258. n. 51.—*Falco hinnularius.* Lath. ind. orn. i. 15. n. 20.—*Aquila Albicilla minor.* Briff. orn. 124. n. 6.—*Aquila Pygargus*, of Aldrovandus. Will. orn. ang. 62.—Hinnularia, or Fawn-killing Eagle. Charl. onom. 63. n. 4.—Erne. Gefn. av. 205.—Lesser white-tailed Eagle. Lath. fyn. i. 39. n. 16.

Inhabits Europe.—Is about the size of a large Cock, being two feet two inches long: The bill and irides are yellowish; the tips of the feathers are blackish; the claws are black. Mr Latham says that this

this species sometimes varies, the external edges of the tail quill feathers being brown in some individuals.

51 17. French Eagle.—26. *F. Aquila gallica*. 52.

The bill is ash coloured; the legs are naked and yellowish; the body is brown grey; the under parts, in the male, being whitish, with reddish brown spots.

Falco gallicus. Syft. nat. ed. Gm. i. 259. n. 52. Lath. ind. orn. i. 15. n. 21.—*Falco hypoleucos*. Decouv. ruff. iii. 303.—*Aquila Pygargus*. Briff. orn. 127. n. 11. Jonst. av. 4. t. 2. Belon. av. 103. f. p. 104. Borowsk. nat. ii. 71.—*Albanella*. Cetti, uc. fard. 31.—*Blanche-queue*. Hist. de Lyon. i. 205.—*Jean-le-blanc*. Buff. ois. i. 124. t. 4. pl. enl. 413. Lath. syn. i. 39. n. 17.

Inhabits Europe, but is chiefly found in France.—Is somewhat less than the Common Eagle, N°. 36. being about two feet and an inch long: The quill feathers of the tail are white, with transverse brown streaks, brown tips, and brown edges; the claws are ash coloured. This species builds on the ground, very seldom in trees, and has mostly three grey eggs each brood; it feeds for the most part on mice, rats, and frogs.

52 18. Antarctic Eagle.—27. *F. Aquila australis*. 53.

Of a brown colour, with a yellow cere, and black tail, spotted at the tip with dirty white.

Falco australis. Syft. nat. ed. Gm. i. 259. n. 53. Lath. ind. orn. i. 16. n. 23.—*Statenland Eagle*. Lath. syn. i. 40. n. 19.

Inhabits Statenland.—Is about the size of the Plaintive Bastard-eagle, N°. 32. being a little more than two feet long: The tail, according to Mr Latham, is yellowish at the tip; its voice resembles that of a common hen.

53 19. Black-backed Eagle.—28. *F. Aquila melanonota*. 54.

The cere, and downy legs, are yellow; the head, crown, belly, and wing coverts, are rusty; the back, breast, chin, and wing quills, are black.

Falco niger. Syft. nat. ed. Gm. i. 259. n. 54.—*Falco melanonotus*. Lath. ind. orn. i. 16. n. 26.—*Black-backed Eagle*. Lath. syn. i. 42. n. 22. Brown, illus. 4. t. 2.

Its place uncertain.—Is about the size of the Golden Eagle, N°. 40. The tail is white at the base, the outer half being black; the bill and claws are black.

54 20. White-crowned Eagle.—29. *F. Aquila leucorypha*. 55.

The cere is ash coloured, with a dusky bluish tinge; the legs are half downy and whitish; the body is clouded brown; the crown and chin have each a triangular white spot.

Falco leucoryphus. Syft. nat. ed. Gm. i. 259. n. 55. Lath. ind. orn. i. 17. n. 27.—*Aquila leucorypha*. Pallas, it. i. 454.—*White-crowned Eagle*. Lath. syn. i. 42. n. 23.

Inhabits the southern parts of Siberia, towards the Jaik and Ural.—It resembles the Osprey, N^o. 39. but is somewhat larger: The wings are dirty black, the inner webs of their quill feathers being white; the tail is longish, stiff, and equal at the end; the tongue is round, and undivided at the tip; the irides are brown grey; the claws are very large and black.

55

21. Ruffian Eagle.—30. *F. Aquila Mogilnik*. 56.

The cere is yellow; the legs are downy, and, with the rest of the body, are dark rusty brown, the back being mixed with white.

Falco Mogilnik. Syft. nat. ed. Gm. i. 259. n. 56. Lath. ind. orn. i. 17. n. 28.—Aquila Mogilnik. S. G. Gmel. nov. com. petrop. xv. 445. t. 11. b.—Ruffian Eagle. Lath. syn. i. 43. n. 24.

Inhabits the deserts of Ruffia, near the Don.—Is about the size of the Tawny Eagle, N^o. 41. being two feet three inches long: The bill, pupils of the eyes, claws, and wing quill feathers are black; the eye-lids are pale blue; the irides are pale; the tail is equal at the end, its quill feathers being black, with slight greyish transverse bands, and reddish tips. This species lives on murine quadrupeds and small birds.

56

22. Crested Eagle.—31. *F. Aquila cristata*. 57.

The head is crested; the back, wings, and chin, are black; the belly is white; the tail has four parallel ash coloured bands.

Falco cristatus. Syft. nat. ed. Gm. i. 260. n. 57. Lath. ind. orn. i. 17. n. 29.—Crested Falcon. Dillon, trav. in Spain. 80. t. 3.—Caracca Falcon. Lath. syn. i. 81. n. 64.

Probably inhabits South America.—Is about the size of a Turkey: The lower mandible of the bill is remarkably straight, while the upper one is considerably hooked.

57

23. Rough-legged Eagle.—32. *F. Aquila lagopus*. 58.

The cere, and naked toes, are yellow; the legs are downy; the body is black, spotted with white; the tail quills are white, with black tips. Brunn. orn. bor. 4.

Falco lagopus. Syft. nat. ed. Gm. i. 260. n. 58. Lath. ind. orn. i. 19. n. 33.—Falco norwegicus. Leem, lap. 236.—Graa-falk. Act. nidrof. iv. 417. t. 13.—Rough-legged Falcon. BRIT. ZOOL. ii. app. 529. t. 1. Arct. zool. ii. 200. n. 92. Lewin, brit. birds. i. t. 14. Lath. syn. i. 75. n. 54. sup. 18.

Inhabits Europe and North America, but is seldom found in England.—Is about two feet two inches long: The head, neck, and breast are of a yellowish white, with a few scattered brown streaks. Mr Latham says that the tail is brown, with a white base and tip; and that it preys on partridges and other small birds.

58

24. Greenland Eagle.—*F. Aquila groenlandica*.

The cere and legs are of a lead colour; the body is brownish on the upper, and whitish, with longitudinal brown streaks, on the under parts.

Falco

Falco fuscus. Lath. ind. orn. i. 19. n. 33. β . Faun. groenl. 56. n. 34. β .—Grey Falcon. Crantz, groenl. i. 75. Egede, groenl. 62.—Dusky Falcon. Arct. zool. ii. 220. E.—Greenland Falcon. Lath. syn. sup. 18.

Inhabits Greenland and Iceland.—Mr Pennant describes this species somewhat differently from the character which is given from Mr Latham's Index ornithologicus: The crown is brown, with irregular oblong white spots; the fore-head is whitish; the cheeks blackish; the hind part of the head and the throat are white; the breast and belly are yellowish white, with longitudinal dusky streaks; the back is dusky, tinged with blue, the ends of the feathers being lighter coloured, and is sprinkled with a few white spots, especially about the rump; the wings are of the same colour with the back, and are variegated beneath with black and white; the upper part of the tail is dusky, faintly crossed with paler bars, and its under side is whitish. It is of a small size; lives on Ptarmigans, Auk, and other birds, having frequent disputes with the Ravens, which mostly get the better by numbers. The tails of the young birds are black, with large brown spots on the external webs of the quill feathers.

59

25. Fierce Eagle.—33. *F. Aquila ferox*. 59.

The cere is green; the upper part of the body is brown; the back, belly, and rump, are clear white, with chestnut coloured spots; the tail quills are equal in length, of a brown colour, with four slightly marked paler bands.

Falco ferox. Syft. nat. ed. Gm. i. 260. n. 59. Lath. ind. orn. i. 13. n. 11.—Accipiter ferox. S. G. Gmel. nov. com. petrop. xv. 442. t. 10.—Fierce Eagle. Lath. syn. i. 33. n. 7.

Inhabits the Russian empire, near Astrachan.—Is about two feet and an inch long; is extremely greedy, and preys often on carrion: The head and neck are rusty, mixed with white, having a blackish-lead coloured bill; the eye-lids are blue, and the irides yellow; the wings have each twenty six black quill feathers, which are white underneath, and grey at the tips; the tail is equal at the end, having twelve quill feathers, which are white underneath; the claws are very sharp.

60

26. Javan Eagle.—34. *F. Aquila javanica*. 60.

The cere and legs are yellow; the body, thighs, and tail, which is white at the tip, are dusky red mixed with white.

Falco maritimus. Syft. nat. ed. Gm. i. 260. n. 60. Wurm, in Lichtemb. magaz. des phys. iv. 2. 6. Lath. ind. orn. i. 20. n. 35.

Inhabits the sea coast of Java.—This species preys on fish and carrion; it is four feet two inches long, measuring from the end of the bill to the tip of the tail, and is one foot five inches high, when standing: The bill is yellow.

61

27. Egyptian Eagle.—35. *F. Aquila aegyptia*. 61.

The cere, and half downy legs, are yellow; the upper part of the body is ash coloured, and the under parts rusty; the upper parts of the wings are brown; the tail is ash coloured, barred with brown, as long as the body, and forked at the end.

Falco aegyptus. Syft. nat. ed. Gmel. i. 261. n. 61.—*Falco Forficahlii*. Id. 263. n. 121. Lath. ind.

ind. orn. i. 20. n. 36.—*Falco cinereo-ferrugineus*. Forst. faun. arab. i. 1. et vi. 1.—Arabian Kite.
Lath. syn. sup. 34.

Inhabits Egypt.—Mr Latham thinks this may be a variety of the Kite: The wing quill feathers are black at the tips; the under sides of the wings are brown grey; the bill is yellow, and the claws black. It is about a foot and a half long, and is numerous in Egypt during winter.

62

28. Kite.—36. *F. Aquila Milvus*. 12.

The cere is yellow; the tail is forked at the end; the body is rusty, and the head somewhat whitened.

Falco Milvus. Syft. nat. ed. Gm. i. 261. n. 12. Faun. suec. n. 57. Ger. orn. i. 62. t. 39. Borowfk. nat. ii. 72. n. 8.—*Falco cauda forficata*. Klein, av. 51. n. 13. Id. ov. 19. t. 6. f. 1.—*Milvus*. Gefn. av. 610. Aldrov. orn. 392. f. p. 368. Raj. av. 17. t. 25.—*Milvus regalis*. Briff. av. i. 414. t. 33.—Milan. Wirfing. voy. t. 48.—Milan royal. Buff. ois. i. 197. t. 7. Pl. enl. 422.—Weiffar Milan. Gunth. nest. u. eyer. t. 63.—Glada. Faun. suec. n. 57.—*Nibbio*. Cetti, uc. fard. 57. Zinnan. uov. 82. t. 13. f. 73.—Hunergeyer. Wurmb, in Licht. magaz. der phys. iv. 2. 6.—Kite, or Glead. BRIT. ZOOLOG. i. n. 53. Arct. zool. ii. 223. H. Will. orn. ang. 74. t. 6. Alb. i. t. 4. Hayes, brit. birds. t. 5. Lewin, br. birds. i. t. 10. and t. 2. f. 3. (ov.) Lath. syn. i. 61. n. 43. sup. 17.

63

β. Siberian Kite.—36. β. *F. Aqu. Milvus sibiricus*.

The crown of the head, and the throat, are chestnut coloured. S. G. Gmel. it. i. 147.

64

γ. Russian Kite.—36. γ. *F. Aqu. Milvus Korschun*.

The cere is greenish; the body is brownish; the head, throat, and chin, are chestnut coloured.

Accipiter Korschun. S. G. Gmel. nov. com. petrop. xv. 444. t. 11. a.—Russian Kite. Lath. syn. i. 63. n. 46.

65

δ. Jaic Kite.—36. δ. *F. Aqu. Milvus jaicensis*.

The back coverts are violet coloured, having the tip of each feather marked with a white spot. Lepech. it. ii. 180. t. 2.

The several varieties of the Kite are found in Europe, Asia, and Africa.—They prey almost on any thing that comes in their way, and are particularly destructive to young poultry. When, in their flight, they skim gently along, it is considered as portending tempestuous weather; when they soar very high, fine weather is expected; and when they are clamorous it is thought to foretell rain. They breed twice a year, once in the summer of Europe, and a second time in the mild winter of Egypt and the Levant, laying usually three roundish eggs, which are whitish, with dirty yellow spots. They migrate from Asia to Europe about the end of April, and during fourteen days are seen crossing the Black Sea in immense multitudes; but are found in Britain at all seasons. The Kite is about two feet long, or a little more, and five feet in extent of the wings, weighing about forty-four ounces.—The Russian variety, γ, which is found mostly about the Don, is only about twenty-one inches long; its bill is blackish lead colour, with a greenish cere; the circumference of the orbits is white; the tail and

and wing quill feathers are black with dusky tips.—The Jaic variety, ♂, which inhabits towards the Jaic and Ural, is hardly twenty inches long, of which the tail is twelve inches; its feathers are mostly tipped with white; its wing quills are marked with alternate streaks and spots of white and cherry-red from the base to the middle, and of greenish or bluish black from the middle to the end; the tail quills have each two narrow yellow and white streaks at the tips; the irides are yellow; the thighs are covered thickly with feathers; the claws are black.

66

29. Black Kite.—37. *F. Aquila atra*. 62.

The cere and legs are yellow; the tail is forked; the upper part of the body is brownish black; the head and under parts whitish.

Falco ater. Syft. nat. ed. Gmel. i. 262. n. 62. Lath. ind. orn. i. 21. n. 38.—*Milvus niger*. Briff. orn. 117. n. 34.—*Milan noir*. Buff. ois. i. 203. Pl. enl. 472.—*Schwarzer Milan*. Gunth. nest. u. eyer. t. 55.—*Brauner mald geyer*. Kramer, elench. 326. n. 5.—*Black Gled*. Sibb. Scot. ill. ii. lib. 3. p. 15.—*Black Kite*. Lath. syn. i. 62. n. 44.

Inhabits Europe.—Is smaller than the Kite; the tail is but slightly forked; the thighs and legs are slender; the claws are black.

67

30. Austrian Kite.—38. *F. Aquila austriaca*. 63.

The cere, and half downy legs, are yellow; the tail is forked; the upper part of the body is chestnut, and the lower parts brick dust colour, spotted with brown.

Falco austriacus. Syft. nat. ed. Gm. i. 262. n. 63. Lath. ind. orn. i. 21. n. 39.—*Brauner geyer*. Kramer, elench. 327. n. 6.—*Austrian Kite*. Lath. syn. i. 62. n. 45.

Inhabits the forests of Austria.—Is about the same size with the Kite: The bill is yellow, with a black spot; the angles of the mouth are yellow, and the palate is blue; the irides and claws are black; the forehead and chin are whitish, with brown spots; the head, breast, and wings, are chestnut coloured; the tail is small, and but slightly forked; its quill feathers are striped with blackish, and are white at the tips.

68

31. Brazilian Kite.—39. *F. Aquila brasiliensis*. 64.

The legs are yellow; the body is reddish, interspersed with white and yellow dots; the tail is variegated with brown and white.

Falco brasiliensis. Syft. nat. ed. Gmel. i. 262. n. 64. Lath. ind. orn. i. 21. n. 40.—*Milvus brasiliensis*. Raj. av. 17. n. 6.—*Circus brasiliensis*. Briff. orn. 116. n. 31.—*Caracara*. Buff. ois. i. 222.—*Brazilian Kite*. Lath. syn. i. 63. n. 47.

Inhabits Brasil.—Is about the size of the Kite: The breast and belly are sometimes whitish; the tail is about nine inches long; the bill, and long sharp claws, are blackish; the eyes and irides are yellow. This species is very destructive to poultry.

69

32. Peruvian Kite.—40. *F. Aquila peruviana*. 25.

The cere is dusky; the legs are yellowish; the body is brown above and whitish below; the tail is very long and much forked.

Falco

Falco furcatus. Syft. nat. ed. Gmel. i. 262. n. 25. Lath. ind. orn. i. 22. n. 41.—*Falco peruvianus*. Klein, av. 51. n. 14.—*Milvus carolinensis*. Briff. orn. 118. n. 36.—*Milan de la Caroline*. Buff. oif. i. 221.—*Hirundo maxima peruviana*. Feuill. it. ii. 33.—Swallow-tailed Hawk, or Her-ring Hawk. Catesb. carol. i. 4. t. 4. Lawfon, carol. 138.—Swallow-tailed Falcon. Arct. zool. i. 210. n. 108. t. x. Lath. fyn. i. 60. n. 42.

Inhabits Peru, and Carolina.—This species lives on lizards, serpents, and various insects, which last it catches, like swallows, when flying; it is about two feet long, but rather smaller than the kite: The back has a purplish and greenish tinge; the head and neck are white; the inner webs of the primary and secondary wing quills are white towards the bases, and the tertial wing quills are white; the bill is black, not much hooked, and is surrounded with bristles at its base; the tail is very much forked.

70

33. Balbuzard.—42. *F. Aquila Haliaetos*. 26.

The cere and legs are blue; the upper part of the body is brown; the lower parts, and the head, are white.

Falco Haliaetos. Syft. nat. ed. Gm. i. 263. n. 26. Lath. ind. orn. i. 17. n. 30. Borowsk. nat. ii. 71. n. 6. Kolb. cap. ii. 137.—*Haliaetos*, f. *Aquila marina*. Briff. orn. 126. n. 10.—*Falco cyanopus*. Klein, stem. 8. t. 8. f. 1. a. b. c.—*Aigle de mer*. Voy. en barb. i. 265. n. 4.—*Morphnos*, f. *Clanga*. Aldr. orn. i. 211. Raj. av. 7. n. 6. Will. orn. 32.—*Bald Buzzard*. Will. orn. angl. 69. t. 6.—*Balbuzard*. Buff. oif. i. 103. t. 2. Pl. enl. 414.—*Balbuzardus anglorum*. Raj. fyn. 16. A. 3. Gerin. orn. i. 64. t. 40.—*Fisk Gjoe*. Leem. 234.—*Fishaar*. Wirsing. voy. t. 47.—*Blafot*, *Fisk-orn*. Faun. suec. n. 63.—*Osprey*. BRIT. ZOO. I. n. 46. Id. fol. 65. t. A. 1. Faun. scot. i. 17. t. 1. Arct. zool. ii. 199. n. 91. Lewin, brit. birds. i. t. 5. Id. i. t. 1. f. 2. ov. Lath. fyn. i. 45. n. 26. sup. 13.

71

β. Ruffian Balbuzard.—42. β. *F. A. Haliaetos arundinacea*.

The cere is ash coloured; the legs are pale; the body is brownish grey above, and whitish below; the tail is equal. S. G. Gmel. it. ii. 163.

72

γ. Carolina Balbuzard.—42. γ. *F. A. Haliaetos carolinensis*.

The tail is uniformly brown; the crown is black, or brown, variegated with white; the belly is white.

Falco piscator antillarum, et *Falco pisc. carolinensis*. Briff. orn. 105. n. 14. 15.—*Piscator*. Raj. av. 19. n. 2.—*Faucon pecheur*, de la caroline. Buff. oif. i. 142.—*Fishing Hawk*. Catesb. carol. i. t. 2. Lawfon. 137. Bricknel, 173.—*Carolina Osprey*. Lath. fyn. i. 46. n. 26. A.

73

δ. Cayenne Balbuzard.—42. δ. *F. A. Haliaetos cayennensis*.

The body is rusty brown; the hind head is white, and a white line reaches from thence through the region of the eyes to the upper mandible.

Cayenne Osprey. Lath. fyn. i. 47. n. 26. B.

Inhabits Europe, Asia, and America; is found in the Isle of Pines, in the South Sea, and at the Cape of Good Hope.—How this bird, and the Osprey, *Aquila Offisfraga*, N^o. 39. have both received the

the same English names from such respectable ornithologists as Mr Pennant and Mr Latham, is difficultly conceived; that they are very different species is perfectly apparent, and accordingly, in this edition, the name of Balbuzard, which is a corruption of Bald buzzard, is adopted from the Count de Buffon, for this species. The several varieties build their nests chiefly among reeds and other marshy plants; they prey on water fowl, and on fishes, chiefly large ones, and even dive into the water after them; sometimes they perish in the attempt by fixing their talons into fishes of such strength as to carry them under water. This species is scarcely two feet long; a brown bar descends on each side, from the region of the eyes to the root of the wings; the tail quill feathers are barred, on the inner webs, with brown and white, except in the Carolina variety.

74 34. Mansfenny.—43. *F. Aquila antillarum*. 65.

Of a brown colour, with a black crown, and white belly.

Falco antillarum. Syft. nat. ed. Gm. i. 264. n. 65. Briff. orn. 104. n. 13. Lath. ind. orn. i. 19. n. 32.—Mansfenny. Raj. av. 19. n. 1. Hist. antill. ii. 252. Buff. ois. i. 144. Lath. syn. i. 47. n. 27.

Inhabits the West India islands.—This species is scarcely bigger than a Hawk, but has much stronger legs and claws, and is allied to the Eagles in its general appearance and plumage; it preys on small birds and amphibious animals.

75 35. Chinese Eagle.—44. *F. Aquila sinensis*. 66.

The cere and legs are yellow; the body is reddish brown above, and yellowish beneath.

Falco sinensis. Syft. nat. ed. Gm. i. 264. n. 66. Lath. ind. orn. i. 13. n. 13.—Chinese Eagle. Lath. syn. i. 35. n. 11. t. 3.

Inhabits India and China.—This species is among the largest of the division; the bill and claws are large and black; the irides are brown; the crown is dusky; the coverts and quill feathers of the wings and the tail are marked with a dusky band.

76 36. Cheela Eagle.—*F. Aquila Cheela*.

Of a brown colour, and having a slight crest; the coverts of the wings are spotted with white; the rump is white, and the tail is marked with a broad white band. Lath.

Falco Cheela. Lath. ind. orn. i. 14. n. 14.—Cheela Falcon. Lath. syn. sup. 33.

Inhabits India.—This species, though reckoned a Falcon by Mr Latham both in his Index and Synopsis, is placed among the Eagles on his authority, as he informs us that its size is Aquiline, and as he places it among those species of the genus Falco which are reckoned Eagles by Dr Gmelin. The body is strongly made; the bill is blue, and the irides and legs are yellow.

77 37. Asiatic Eagle.—*F. Aquila asiatica*.

The legs are yellow and half downy; the body is brown above, and white beneath, the breast being streaked; the tail quill feathers are silver grey, the external ones having five scarcely visible bands.

Falco asiaticus. Lath. ind. orn. i. 14. n. 15.—Asiatic Falcon. Lath. syn. sup. 31.

Inhabits China.—This species is placed among the Eagles for the same reasons as the last. It is twenty-one inches long, and resembles the Buzzard, though larger: The bill is black; the wing quill feathers are grey, with black bands; the upper coverts of the tail are white: the legs are downy on their fore parts.

78

38. New-holland Eagle.—47. *F. Aquila novae-hollandiae*. 69.

Of a white colour, with yellow legs and cere; the back claw is twice the length of the rest.

Falco novae-hollandiae. Syft. nat. ed. Gmel. i. 264. n. 69. Lath. ind. orn. i. 16. n. 22.—New-holland white Eagle. Lath. fyn. i. 40. n. 18.

Inhabits New-holland.—Is about twenty inches long; the bill and claws are black, and the space round the eyes is yellow.

79

39. Urubutinga.—48. *F. Aquila Urubutinga*. 70.

The cere and legs are yellow; the body is brown; the wings are blackish, mixed with ash colour; the tail is white, having a black tip, which is speckled with white.

Falco urubutinga. Syft. nat. ed. Gm. i. 265. n. 70. Lath. ind. orn. i. 22. n. 43.—*Aquila brasiliensis*. Briff. orn. 128. n. 12.—Brazilian Eagle. Lath. fyn. i. 43. n. 25.—Urubutinga. Will. orn. 32. Id. angl. 64. Raj. av. 8. n. 9. Buff. ois. i. 141.

Inhabits Brasil.—Is about the size of a half year old Goose: The bill is large and black, and the eyes are large.

80

40. Pondicherry Eagle.—49. *F. Aquila ponticeriana*. 71.

The cere is bluish; the legs yellow; the body chestnut coloured; the head, neck, and breast, are white; all the feathers have a longitudinal brown streak in the middle.

Falco ponticerianus. Syft. nat. ed. Gmel. i. 265. n. 71. Lath. ind. orn. i. 23. n. 46.—*Aquila ponticeriana*. Briff. orn. 129. n. 15.—Pondichery Eagle. Lath. fyn. i. 41. n. 21.—Aigle de Pondichery. Buff. ois. i. 136.—Aigle des Grandes Indes. Pl. enl. 416.—Aigle de Malabare. Eff. phil. 55.

Inhabits Malabar.—Is about nineteen inches long: The bill is ash coloured, with a yellow tip; the six first quill feathers of the wings are black from the middle to the tips; the claws are black.

81

41. Equinoctial Eagle.—50. *F. Aquila equinoctialis*. 72.

The legs are yellow; the head, neck, and back, are blackish brown; the breast is reddish; the shoulders and wing coverts are chocolate coloured; the tail is black, and its quill feathers, except the two middle ones, are each marked with the figure of the letter V. in white.

Falco equinoctialis. Syft. nat. ed. Gmel. i. 265. n. 72. Lath. ind. orn. i. 22. n. 42.—Equinoctial Eagle. Lath. fyn. i. 43. n. 25.

Inhabits

Inhabits Cayenne.—Is about twenty-one inches long : The bill and claws are pale horn colour, the latter being tipped with black. Mr Latham says that the body is mixed black and rusty, and that its under parts are reddish, having transverse brown streaks.

*** FALCONS AND HAWKS.—*FALCONES*.

The birds of this subdivision are less in size than the former, and their legs are universally naked.

The limits between the Falcons and Hawks, and the Eagles, are by no means well ascertained, but, in compliance with the authority of Dr Gmelin, the subdivision is here preserved : It is extremely difficult, through the whole genus, to mark with accuracy the distinctions of species and varieties; as, besides the difference between the sexes of the same species, which is often very considerable, and the various appearances the same species puts on at different periods of life, they are very apt to change their appearances, and the colours of the feathers, and even of the cere, in consequence of the influence of climate, and by difference in the manner of feeding; hybrid generation is likewise a fertile source of variety through this genus, as well as in most parts of the class: All these concurrent causes of variation and obscurity produce considerable dubiety to the ornithologist, and must occasion the observations of different naturalists to disagree; but the following list, it is hoped, will be found perhaps as perfect as the nature of the subject will admit.

The art of Falconry, or of training Hawks and Falcons to the chase of Antelopes, Cranes, Herons, Hares, Partridges, &c. which has been in all ages familiar among many of the Tartar and other nations, is, in Europe, entrusted to the care of particular people who have reduced it to a kind of science, being employed by the great to contribute to their amusement. Almost every species of the genus may be trained to this employment, though some species are more expert than others, and some are better adapted to particular kinds of sport, or to the chase of particular kinds of game. On this subject consult d'Esparon, *Ars falconaria*. Francof. 1617.

The English names used in this genus may appear less systematic than in most others, but in this I have chiefly followed the examples of Mr Latham and Mr Pennant, who have preserved very properly the usual names employed in England, and have affixed names to the foreign species as near as possible to those of the British kinds which they resemble the most. In general those named Hawks are smaller than such as are called Falcons, but this is not universally the case; perhaps it would have been better to have named them all Falcons, with a specific addition for each; but it is sometimes dangerous to depart too boldly from the track already followed by men of high and deserved reputation.—T.

82

1. Oriental Hawk.—45. *Falco orientalis*. 67.

The legs are leaden coloured; the upper part of the body and the head are dusky brown, the space above the eyes being streaked with rust colour, and the lower part of the body mixed brown and rusty; the tail is spotted with white.

F. orientalis. Lath. ind. orn. i. 22. n. 44.—Oriental Hawk. Lath. syn. i. 34. * n. 7. c.

Inhabits Japan.—Is seventeen inches long, of which the tail is eight: The bill is large, its upper mandible, and the claws are black, the lower mandible being yellow; the head is more dusky than the body; the plumage has a black streak in the middle of each feather; the secondary coverts of the wings are spotted with white.

83

2. Indian Hawk.—46. *Falco indicus*. 68.

The cere and legs are yellow; the forehead and rump are white; the body is rusty above, and rusty brown streaked with whitish on the belly; the tail is brown, with five black bands.

F. indicus. Lath. ind. orn. i. 23. n. 45.—Javan Hawk. Lath. syn. i. 34. * n. 7. d.

Inhabits Java.—Is about the same size with the preceding: The bill is yellow at the base, and black at the tip; the lower coverts of the wings are dirty reddish white, waved with rust colour; the wing quill feathers are transversely streaked and tipped with black; the coverts of the tail are dotted with white; the chin, throat, and breast are reddish brown; the claws are black. Mr Latham adds to this description, that the under sides of the wings are whitish waved with rusty, and that the nape of the neck is whitish.

84

3. Common Buzzard.—51. *Falco Buteo*. 15.

The cere and legs are yellow; the body is brown, the belly being whitish, with large brown spots. Scop. an. i. 15. n. 4.

F. Buteo. Lath. ind. orn. i. 23. n. 47.—*Buteo*. Briff. orn. 116. n. 32.—*Buteo vulgaris*. Gesn. av. 46. Aldr. orn. i. 369. f. p. 370. Raj. av. 16. A. 1. Will. orn. 38. t. 6. 1.—*Buteo*. Buff. ois. i. 206. t. 8. Pl. enl. 419.—Maase Geyer. Gunth. nest. t. 50. ?—*Quidfogel*. Faun. suec. n. 60.—*Pojana secunda*. Zinnan. 85. t. 14. f. 56.—*Buzzard*. BRIT. ZOOL. i. 188. n. 54. t. 25. Arct. zool. ii. 207. n. 103.—*Common Buzzard*. Will. orn. ang. 70. Alb. av. i. t. 1. Lath. syn. i. 48. n. 28. sup. 14.

Inhabits Europe.—Is twenty inches long, and apt to vary in its colours from difference of age and sex; but in general the tail quill feathers are brown with darker bands, the bill is leaden coloured, the irides dusky, and the claws black; the eggs are mostly of a bluish white, with rusty brown spots, but are sometimes entirely whitish. This animal lives on birds, reptiles, small quadrupeds, and insects.

85

4. Greater Buzzard.—52. *Falco gallinarius*. 73.

The cere and legs are yellow; the body is brown above, and reddish on the under parts, with oval brown spots; the tail is barred with brown.

F. Buteo major. Lath. ind. orn. i. 24. n. 47. γ.—*Circus major*, Gros Buzard. Briff. orn. 114. n. 28.—*Hunnerhabicht*, Hunerger. Frisch. av. t. 72.—*Greater Buzzard*. Lath. syn. i. 42.

86

β. Spotted Buzzard.—52. β. *F. gallinarius naevius*.

Resembles the former, but the wings are more variegated.

F. Buteo varius. Lath. ind. orn. i. 24. n. 47. δ.—*Circus varius*. Briff. orn. 116.—*Accipiter itel-larius*. Frisch. av. t. 73.—*Spotted Buzzard*. Lath. syn. i. 49.

Inhabits Europe.—Both of these are considered as varieties of the Common Buzzard by Mr Latham; they measure from twenty to twenty-three inches long; the bill and claws in both are black, and the irides of an orange colour.

87

5. Jamaica Buzzard.—53. *Falco jamaicensis*. 74.

The cere and legs are yellow ; the body is of a brownish buff or cream colour, the under parts being spotted with a paler colour, and the crown of the head is pale.

F. jamaicensis. Lath. ind. orn. i. 24. n. 49.—Jamaica Buzzard. Lath. syn. i. 49. n. 30.

Inhabits, though rare, in Jamaica.—This is a beautiful bird, about the size of, and having a general resemblance to the Common Buzzard, but with short legs : The bill and claws are black ; the irides are yellow ; the shafts of the feathers on the back, and of the tail quills, are brown in the middle.

88

6. American Buzzard.—54. *Falco borealis*. 75.

The cere and legs are pale yellow ; the body is brown on its upper, and white on its under parts ; the tail is of a pale rust colour, having a transverse dusky or black narrow bar near the end.

F. borealis. Lath. ind. orn. i. 25. n. 50.—American Buzzard. Lath. syn. i. 50. n. 31.—Red-tailed Falcon. Penn. Arct. zool. ii. 205. n. 100.

Inhabits North America, particularly Carolina.—Is about the size of the Common Buzzard : The bill and claws are dusky, or black ; the chin is white, mixed with brown ; the throat, belly, and breast are paler than the back, or almost white, the breast and belly being varied with long brown longitudinal stripes, as are the thighs ; the rump is white.

89

7. Rufous Buzzard.—56. *Falco rufus*. 77.

The legs are yellow ; the body is rufous or ruddy, the upper parts having a brownish tinge ; the tail is ash coloured.

F. rufus. Lath. ind. orn. i. 25. n. 51.—*Circus rufus*. Briss. orn. 115. n. 30.—Harpage. Buff. ois. i. 217. Pl. enl. n. 460.—Fischgeyer, Brandgeyer. Frisch. av. t. 78.—Harpy Falcon. Lath. syn. i. 51. n. 32.

Inhabits France and Germany.—Frequents low places, especially near the banks of rivers, and preys on fish : Is about twenty inches long ; the bill and claws are blackish, and the irides are saffron coloured.

90

8. Speckled Buzzard.—57. *Falco variegatus*. 78.

The legs are yellow ; the head and neck are whitish with rusty spots ; the body is brown above and white beneath ; the tail is dusky brown, with paler bands which cross each other.

F. variegatus. Lath. ind. orn. i. 24. n. 48.—Speckled Buzzard. Lath. syn. i. 97. n. 83.—Buzzardet. Arct. zool. ii. 211. n. 109.

Inhabits North America.—Is somewhat more than twelve inches long, and has a general resemblance to the Common Buzzard ; perhaps it is scarcely different from the following.

91

9. Whitish Buzzard.—58. *Falco albidus*. 79.

The legs are yellow; the body is white, with large brown spots; the tail is dusky, with streaks and specks of white.

Inhabits North America.—Dr Gmelin makes separate species of the two last birds, but with a note that he suspects them to be the same: Mr Latham makes only one species, and refers to both Dr Gmelin's as synonymes; while Mr Pennant points out a sufficient difference to constitute them separate varieties. The former is only twelve, while the latter measures fifteen inches long: They resemble the Common Buzzard in general appearance, but the legs of the latter are proportionably longer; the bill and claws are blackish or dusky: In the latter, the lesser coverts of the wings are brown.

92

10. Honey Buzzard.—59. *Falco apivorus*. 28.

The cere is black; the legs, which are somewhat downy, are yellow; the head is ash coloured; the tail is brown, with two dusky or ash coloured bars, and is tipped with white.

F. apivorus. Lath. ind. orn. i. 25. n. 52.—*Buteo apivorus*. Briff. orn. i. 410. Raj. av. 16.—Bondrée. Buff. ois. i. 208. Pl. enl. n. 420.—*Pojana*. Zinnan. 84. t. 13. f. 75.—*Slaghok*. Faun. fucc. n. 65.—Honey Buzzard. BRIT. ZOOL. i. n. 56. Arct. zool. ii. 224. L. Will. orn. 72. t. 3. Albin. av. i. 2. t. 2. Lath. fyn. i. 52. n. 33. sup. 14. Lewin, brit. b. i. t. 1.—*Froschgeyer*. Kram. el. 331. n. 14.—*Goiran*. Belon, av. 101.—*Muse-hoeg*, *Muse-baage*. Brunnich. 5.

Inhabits Europe.—This species lives on mice, small birds, reptiles, particularly lizards and frogs, and on insects, especially bees, from which last circumstance it is named. It is almost two feet long, and weighs very near two pounds: The eggs are of a rusty colour, with darker coloured spots. A variety of this species is sometimes found, in which the coloured bars and white tip of the tail are wanting.

93

11. Moor Buzzard.—60. *Falco aeruginosus*. 29.

The cere is greenish; the body is brownish grey; the crown of the head, chin, armpits *, and legs, are yellow.

F. aeruginosus. Lath. ind. orn. 25. n. 53.—*F. baeticus*. Gerin. orn. 61. t. 32. 33. 34.—*Circus*. Gefn. av. 49. Aldrov. orn. i. 351.—*Circus palustris*. Briff. orn. 115. n. 29.—*Milvus aeruginosus*. Aldrov. orn. i. 395. Raj. av. 17. Nozeman, nied. vog. t. 8. 9.—*Hons-tjuf*. Faun. fucc. n. 66.—*Bufard*. Buff. ois. i. 218. t. 10. Pl. enl. n. 424.—*Faux perdrieux*. Belon, av. 114.—*Bozzagro*. Cetti, uc. fard. 45.—*Nibbio*. Zinnan. 83. t. 13. f. 74.—Moor Buzzard. BRIT. ZOOL. n. 57. Arct. zool. ii. 225. L. Lath. fyn. i. 53. n. 34. sup. 15. Lewin, brit. b. i. t. 8. Will. orn. ang. 75. t. 7. Albin, i. t. 3.

Inhabits Europe.—Lives much in marshy places, in which it builds its nest, and preys on aquatic birds, fish, and rabbits. This species measures twenty-one inches long, and weighs about twenty ounces:

* By the armpits is meant to express, in one word, the space below the root of the wings answering to the hollow under the shoulder joint in man.—T.

ounces : It varies very much in colour, some having the body of a chocolate or dark brown tinged rusty, and the crown of the head clay coloured; in some the body is brownish rusty, with the crown and chin yellowish; and in a few the whole plumage is rusty brown without spot or variegation. The legs are long, slender, and yellow; the cere is either black or greenish; the eggs are whitish with brownish spots, sometimes entirely brown.

94

12. Slavonian Buzzard.—*Falco slavonicus*.

The cere is yellow; the legs and feet, except the toes, are downy; the body is of a brick dust red colour, with black spots; the head and neck verging towards whitish. Lath. ind. orn. i. 26. n. 54. Kram. el. 329. n. 10. It. pofeg. 29.

Inhabits Slavonia and Croatia.—Is about the size of a common Cock: The bill is of a bluish black colour, having a yellow cere; the head, neck, and breast are of an ochreous, or dirty yellowish, white, with longitudinal black streaks or spots; the belly, especially its flanks, are black, sometimes only spotted with black; the wing quills are blackish, the primaries being broad at the origin of their webs, and growing narrow at the extremities; the secondaries are brown with black bands; the wing coverts are variegated with dull red and black spots; the tail is white on its farther half, growing brown at the end, and edged with dull red, some individuals having five blackish bands; the rump and ventlet are whitish, with a few brown and dull red spots; the legs are clothed with dull red plumage, which is irregularly streaked and spotted with black; the feet are yellow, and the irides are blackish. After giving this minute description, Mr Latham expresses a doubt that this bird may only be a variety of the Moor Buzzard.

95

13. Croatian Buzzard.—*Falco marginatus*.

The cere is bluish; the upper part of the body is variegated with brown and rusty, the lower parts being rusty with irregularly oval brown spots; the tail quills are barred with blackish, and edged on each side with white. Lath. ind. orn. i. 26. n. 55. It. pofeg. 28.

Inhabits Slavonia and Croatia.—Is about the size of a common Hen; the plumage on the head and back is brown, the feathers being edged with rust colour; the whole under part of the body is rusty, with longitudinally disposed brown spots of a somewhat oval shape, each of the feathers being rust coloured, having the flank and a small part of the web on each side brown; the whole quill feathers of the wings are brown, with several bands of a darker tint, and rusty white at the tips; the upper side of the tail is brown, the quill feathers having each four broad bars of blackish brown, and edged on each side with white; the tip of the tail is white; its under side is whitish, with bands of a clearer white; the legs and feet are yellow.

96

14. Rusty Buzzard.—*Falco rubiginosus*.

Of a brown colour on the upper parts; the under parts are whitish yellow, having a yellow spot on the breast; the tail quills have each four dull red bars. Lath. ind. orn. i. 27. n. 56. It. pofeg. 29.

Inhabits

Inhabits Sclavonia.—The bill is black; the legs are yellow; the head is whitish yellow, the cheeks being rusty; the upper parts of the body are brown, the tips of the wing covert feathers being whitish; the under parts of the body are whitish yellow, with a rusty yellow irregularly shaped spot on the breast; the wing quill feathers are brown, their exterior webs being somewhat hoary, and the interior having several white bars; the tail quill feathers are brown, with four brickduft-red bars on each.

97

15. Java Buzzard.—61. *Falco javanicus*. 80.

The cere is black, with a yellow middle; the legs are yellow; the head, neck, and breast, are chefnut coloured; the back is brown.

F. javanicus. Lath. ind. orn. i. 27. n. 58. Wurmb, in Lichtenb. magaz. iv. 2. 8.

Inhabits the coast of Java, and lives on fish.—This bird is here called a Buzzard, because placed, both by Dr Gmelin and Mr Latham, amid those species to which that name is given by the latter in his synopsis.

98

16. Cinereous Buzzard.—62. *Falco cinereus*. 81.

The cere and legs are bluish; the body is of a brownish ash colour, mixed with whitish, on the upper part; the eye brows are white with brown spots.

F. Buteo cinereus. Lath. ind. orn. i. 24. n. 47. β .—*F. freti hudsonis*. Briff. orn. 103. n. 10.—Faucon de la baye d'hudson. Buff. ois. i. 223.—Ash coloured Buzzard. Lath. syn. i. 55. n. 35. Edw. av. t. 53.

Inhabits the country about Hudson's Bay in North America.—This bird resembles the Common Buzzard, but is larger, and is probably only a variety of that species: It preys much on partridges. The upper surface of the tail is cinereous brown, with transverse grey stripes; the under surface is cinereous, with white stripes; the irides are yellow; over each eye is a white line, called the *eye-brow* in the character for shortness, which is spotted with brown.

99

17. Streaked Buzzard.—63. *Falco lineatus*. 82.

The cere and legs are yellow; the upper parts of the body are dusky brown; the under parts are reddish with white and pale rusty streaks; the tail quills are dusky brown, with dirty white tips, and having seven dirty white transverse bars.

F. lineatus. Lath. ind. orn. i. 27. n. 59.—Red-shouldered Falcon. Arct. zool. ii. 206. n. 102.—Barred-breasted Buzzard. Lath. syn. i. 56. n. 36.

Inhabits Long Island in North America.—The bill is slender and dusky; the legs are slender, with black claws; the head and neck are yellowish white, longitudinally streaked with dusky; the sides of the back are rusty; the lesser coverts of the wings are rusty with black spots; the wing quill feathers are black with white spots; the breast and belly are pale reddish tawny, the former streaked longitudinally with black, the latter transversely with deep tawny. This species is about twenty-two inches long.

100

18. Leverian Falcon.—55. *Falco leverianus*. 76.

The legs are yellow; the head is variegated with alternate brown and white streaks; the body is brown above, and white below; the wings are dark brown.

F.

F. leverianus. Lath. ind. orn. i. 18. n. 31.—Leverian Falcon. Arct. zool. ii. 206. n. 101. Lath. syn. sup. 31.

Inhabits Carolina.—Is about the size of the Common Buzzard: The bill is dusky, and much hooked; the ends of the feathers on the upper part of the body have each a large white spot; the outer quill feathers of the tail have each nine white and nine dusky transverse bars, the bars of the middle tail quills being alternately dusky and ash coloured, and all of them are tipped with white; the wings reach beyond the end of the tail.

101

19. Plain Falcon.—64. *Falco obsoletus*. 83.

Of a dark brown colour, spotted slightly with white on the under parts of the body; the middle tail quills are plain brown, the inner webs of the rest being mottled with white, and their exterior webs and ends slightly edged with white.

F. obsoletus. Lath. ind. orn. i. 28. n. 61.—Plain Falcon. Arct. zool. ii. 208. n. 104. Lath. syn. sup. 30.

Inhabits near Hudson's Bay.—Is two feet long; the head is dusky, the nape being spotted with white; the throat, breast, belly, and thighs are slightly spotted with white; the bill is black.

102

20. Collared Falcon.—65. *Falco rusticolus*. 7.

The cere, eye-lids, and legs, are yellow; the back is waved with ash colour and white; the throat, under side of the neck and breast, are pure white, and a white collar almost surrounds the neck. Faun. suec. n. 56.

F. rusticolus. Lath. ind. orn. i. 28. n. 60. Faun. groenl. n. 34.—Collared Falcon. Lath. syn. i. 56. n. 37. Arct. zool. ii. 222. G.

Inhabits Sweden, Siberia, and Greenland rarely.—Is about the size of a common Hen: The bill is lead coloured, with a black tip; the head is broad, flat, and streaked longitudinally with black and white; the cheeks are whitish; the belly is white, with a few small dusky heart-shaped spots; the tail has twelve or thirteen transverse bars, alternately whitish and dusky; the exterior webs of the primary wing quill feathers are dusky; the claws are black.

103

21. New-zealand Falcon.—66. *Falco novae-zeelandiae*. 84.

The cere and legs are yellow; the body is blackish brown, the under parts being spotted or streaked with dull red; the wings and tail are spotted with grey.

F. novae-zeelandiae. Lath. ind. orn. i. 28. n. 62.—New-zealand Falcon. Lath. syn. i. 57. n. 38. t. 4. fem.

Inhabits New-zealand.—The space round the eyes is naked and bluish in the *male*, but of a yellow colour in the *female*. The description given by Mr Latham differs from that given above from Dr Gmelin, in saying that the body is of a rusty brown colour. The male is eighteen inches long, the female twenty-three: In both the bill is blue, with a black tip, and is hooked only at the end: In the female the tail is marked with several transverse white bars, while that of the male is rather

spotted. The young birds are less or more variegated with white, and in some the tail wants the bars.

104

22. Goshawk.—67. *Falco palumbarius*. 30.

The cere is black, edged with yellow; the legs are yellow; the body is brown; the tail quills are crossed with fainter bars; the eyebrows are white. Faun. suec. n. 67.

F. palumbarius. Lath. ind. orn. i. 29. n. 65.—*Accipiter palumbarius*. Gefn. av. 51. Aldr. orn. i. 342. f. p. 343. Raj. av. 18. n. 1.—*Asterias*. Aldr. orn. i. 336. t. 340. 341.—*Astur*. Briss. orn. 91. n. 3.—*Autour*. Buff. ois. i. 230. t. 12. Pl. enl. 418. 461.—*Astore*. Cett. uc. fard. 48. Zinn. uov. 87. t. 14. f. 77.—*Großer gesperberter falk*, *Großer gepfeilter falk*. Frisch. av. t. 82. (male) 81 (female). Falck, it. iii. t. 21.—*Goshawk*. BRIT. ZOOL. i. n. 52. Arct. zool. ii. 204. n. 99. Albin, ii. t. 8. Lewin, brit. b. i. t. 9. Lath. syn. i. 58. n. 39. sup. 16.

Inhabits Europe, Asia, and North America.—This species is a great enemy to poultry, and is the best of all the genus for Falconry. It is about thirty-two inches long; the bill is blue with a black tip; the irides are yellow; the head is brown; the whole under parts of the body are white, waved with black; the tail is ash coloured, with a white tip, and is longer than to the tips of the wings; the claws are black: The eggs are bluish white. A variety of a larger size is found in Siberia, on the Uralian mountains, of a white colour mottled with brown and yellow; and in Kamtschatka a variety is found entirely white.

105

23. Cayenne Falcon.—68. *Falco cayennensis*. 85.

The legs are blue; the head and neck are of a bluish white; the back and wings are dark ash colour; the throat, breast, and belly, are whitish.

F. cayennensis. Lath. ind. orn. i. 28. n. 63.—*Petit Autour de Cayenne*. Buff. ois. i. 237. Pl. enl. 473.—*Cayenne Falcon*. Lath. syn. i. 59. n. 40.

Inhabits Cayenne.—The bill is blue; the claws and primary wing quill feathers are black; the secondaries are streaked with black; the tail has four or five alternate black and white transverse bars, and is white at the tip.

106

24. Long-tailed Falcon.—69. *Falco macrourus*. 85.

The cere and legs are yellow; the bill is blackish; the body is ash coloured above and white below; the inner webs of the wing quills are ash coloured, and their ends white.

F. macrourus. Lath. ind. orn. i. 29. n. 64.—*Accipiter macrourus*. S. G. Gmel. it. i. 48. Nov. com. petr. xv. 439. t. 8. 9. Lepechin, it. i. 260.—*Long-tailed Falcon*. Lath. syn. i. 59. n. 41.

Inhabits Russia.—Is about the size of the Lanner, being one foot seven inches long, of which the tail measures nine inches; the bill is black, with a green base.

107

25. Gentil Falcon.—70. *Falco gentilis*. 13.

The cere and legs are yellow; the body is ash coloured, with brown spots; the tail has four or five broad blackish bands. Faun. suec. n. 58. Scopol. an. i. 15.

F.

F. gentilis. Lath. ind. orn. i. 29. n. 66. Gefn. av. 71. Aldr. orn. i. 481. Briff. av. i. 339.—*Falco montanus*. Raj. av. 13.—Gentil Falcon. BRIT. ZOOL. i. n. 50. t. 21. 22. Arct. zool. ii. 203. n. 98. Albin. av. ii. 4. t. 6. Will. orn. angl. 79. Lewin, brit. b. i. t. 11. Lath. syn. i. 64. n. 48. sup. 17.

Inhabits the higher mountains of Europe, North America, and the country on the Wolga.—Lives much on partridges: This species is rather larger than the Goshawk; but those found in America are larger than those of Europe, being as far as two feet two inches long: The bill is dusky, or leaden coloured; the irides are yellow; the head and upper side of the neck are light rusty, with black streaks; the whole under part of the body is white, with dusky heart-shaped spots; the tail is dotted with white; the claws are black.

108

26. Common Falcon.—71. *Falco communis*. 86.

The bill is bluish ash coloured, with a yellow cere; the legs and irides are yellow; the body is brown, the plumage being edged with rusty; the tail is barred transversely with darker brown.

F. communis. Lath. ind. orn. i. 30. n. 67.—*Accipiter fuscus*, Schwarzbrauner Falk. Frisch, av. t. 74.—*Falco*. Briff. orn. 92. n. 4.—*Faucon*. Buff. oif. i. 249.—*Falcane*. Cett. uc. fard. 36.—Common Falcon. Lath. syn. i. 65. n. 49.

Inhabits Europe, Asia, and America.—This species is subject to great variety from age, sex, climate, and other circumstances; the best marked varieties are enumerated in the following list.

109

β. Yearling Falcon.—71. β. *F. communis hornotinus*.

Has an ash coloured tinge. Briff. orn. 93. n. 4. A. Lath. ind. orn. i. 30. n. 67. β.

Faucon fors. Buff. oif. i. t. 15. Pl. enl. 470.—Yearling Falcon. Lath. syn. i. 65. n. 49. A.

This bird, as its name implies, is a young Falcon of a year old, and differs from the former in the brown being lighter or ash coloured.

110

γ. Haggard Falcon.—71. γ. *F. communis gibbosus*.

The back is somewhat hunched. Raj. av. 14. n. 6. Briff. orn. 93. n. 4. B. Lath. ind. orn. i. 30. n. 67. γ.

Faucon haggard, *Faucon bossu*. Buff. oif. i. 254. t. 16. Pl. enl. n. 471.—Haggard Falcon. Will. orn. angl. 80. Lath. syn. i. 66. n. 49. B.

This is an aged Common Falcon; the neck is shortened, and sinks down between the shoulders, giving an appearance as if the back were hunched, from which circumstance the name is derived.

111

δ. White-headed Falcon.—71. δ. *F. communis leucocephalus*.

The head, neck, and breast, are white, with small brown spots. Briff. orn. 93. n. 4. c. Lath. ind. orn. i. 30. n. 67. δ.

Rauh-fufs geyer, *Gelbrauner geyer*. Frisch, av. t. 75.—White-headed Falcon. Lath. syn. i. 66. n. 49. c.

112

ε. White Falcon.—71. ε. *F. communis albus*.

Is entirely white, with hardly visible yellow spots. Raj. av. 14. n. 7. Briff. orn. 94. n. 4. D. Lath. ind. orn. i. 31. n. 67. ε.

Weiffer falk, Weiffer geyer. Frisch, av. t. 80.—White Falcon. Will. orn. 80. n. 7. Lath. syn. i. 66. n. 49. D.

This variety is found in China.

113

ζ. Black Falcon.—71. ζ. *F. communis ater*.

Is of an uniform brownish black colour.

F. niger. Briff. orn. 94. n. 4. E. Lath. ind. orn. i. 31. n. 67. ζ.—*F. columbarius*, or Nebbi. Raj. av. 161. n. 5.—Falcon passager. Buff. ois. i. 263. Pl. enl. n. 469.—Schwarzbrauner habicht. Frisch, av. t. 83.—Black Hawk, or Black Falcon. Edw. av. i. t. 4.—Black Falcon. Lath. syn. i. 67. n. 49. E.

114

η. Spot-winged Falcon.—71. η. *F. communis naevius*.

The wings are spotted.

F. maculatus. Briff. orn. 95. n. 4. F. Lath. ind. orn. i. 31. n. 67. η.—Spotted Falcon. Edw. av. i. t. 3.—Spotted-winged Falcon. Lath. syn. i. 68. n. 49. F.

Is found in Hudon's Bay.—Mr Latham expresses a doubt whether the variety referred to in Edward's and his own synopsis of birds be the same with the one enumerated by Gmelin: He likewise refers to the same synonymes a third variety of the Peregrine Falcon. Ind. orn. i. 33. n. 72. γ.

115

θ. Brown Falcon.—71. θ. *F. communis fuscus*.

The upper part of the body is brown, with spots of a darker shade; the under parts are white, with brown spots, those on the breast being sharp pointed. Briff. orn. 95. n. 4. G. Lath. ind. orn. i. 31. n. 67. θ.

Braunfahler geyer. Frisch, av. t. 76.—Brown Falcon. Lath. syn. i. 68. n. 49. G.

116

ι. Red-spotted Falcon.—71. ι. *F. communis ruber*.

Is spotted with red and black. Briff. orn. 96. n. 4. H.

F. rubens. Raj. av. 14. n. 10. Lath. ind. orn. i. 31. n. 67. ι.—Red Falcon. Will. orn. 81. n. 10. Lath. syn. i. 69. n. 49. H.

117

κ. Tawny Falcon.—71. κ. *F. communis indicus*.

The body is of a reddish tawny on the under parts.

F. ruber indicus. Briff. orn. 96. n. 4. I. Raj. av. 14. n. 11. Lath. ind. orn. i. 31. n. 67. κ.—Red indian Falcon. Will. orn. 81. t. 9. Lath. syn. i. 69. n. 49. I.

Is found in India.—Is of a brown ash colour on the upper parts of the body; the quill feathers of the tail have black and ash coloured curved stripes or bars.

118 λ. Italian Falcon.—71. λ. *F. communis italicus*.

The breast is yellow, with rusty spots; the extremities of the wings are spotted with white.

F. italicus. Jonst. av. 19. Briff. orn. 97. n. 4. κ. Lath. ind. orn. i. 32. n. 67. λ.—Italian Falcon. Lath. syn. i. 70. n. 49. κ.

The head and neck of this variety, according to Mr Latham, are tawny red with rusty streaks, and the breast is tawny, with ash coloured minute dots.

119 μ. Arctic Falcon.—71. μ. *F. communis arcticus*.

This variety is not described.

F. islandus. Briff. orn. 97. n. 4. L.—Iceland Falcon. Lath. syn. i. 70. n. 49. L.

This last variety is omitted in Mr Latham's index, though enumerated in his synopsis, as he probably considers it to be the same with one or other of the varieties of the following species.

120 27. Iceland Falcon.—72. *Falco islandus*. 87.

The cere and legs are yellow; the body is brown above, its lower parts being white with black heart-shaped spots; the tail is barred with white. Brunn. orn. bor. 2. n. 9.

121 β. White Iceland Falcon.—72. β. *F. islandus albus*.

Of a white colour, the upper parts being marked with minute black heart-shaped spots; the two middle tail quills are indistinctly barred with blackish. Brunn. orn. bor. 2. n. 9.

122 γ. Spotted Iceland Falcon.—72. γ. *F. islandus maculatus*.

Of a white colour, having large black heart-shaped spots; all the tail feathers are barred with black. Brunn. orn. bor. 2. n. 8.

Inhabits Iceland.—This species measures one foot nine inches long: The head is white, mixed with rusty; the back is dusky, each feather being whitish, with brown streaks, and edged with white; the tail is rounded at the end, and has about fourteen transverse bars, alternately brown and white; the claws are black, the back claw being remarkably long. Mr Latham refers the first variety to the Brown Gyrfalcon, and the other two to the White Gyrfalcon, which will be described afterwards.

123 28. Barbary Falcon.—73. *Falco barbarus*. 8.

The cere and legs are yellow; the body is of a bluish colour variegated with brown spots, the breast having no spots; the tail is barred.

F. barbarus. Lath. ind. orn. i. 33. n. 71.—*F. barbaricus*. Briff. orn. 99. n. 6. A.—*F. tunetanus*. Aldr. av. i. 483. Raj. av. 14. n. 9.—Barbary Falcon. Will. orn. 81. Albin, av. iii. t. 2. Lath. syn. i. 72. n. 51.

Inhabits

Inhabits Barbary.—Is about seventeen inches long, and resembles the Lanner both in size and colour; Dr Gmelin and Mr Latham suspect this may only be a variety of the Peregrine Falcon: The bill is black; the irides are yellow; the wings are very slightly, if at all, spotted; the breast is yellowish white, verging towards blue; the belly is marked with oblong black spots; the tail has seven brown bars.

124

29. Peregrine Falcon.—74. *Falco peregrinus*. 88.

The cere and legs are yellow; the body is ash coloured above, with brown bars, the under parts being dull reddish white with blackish lines; the tail is dotted with white.

F. peregrinus. Raj. av. 13. n. 1. Briff. orn. 98. n. 6. Lath. ind. orn. i. 33. n. 72. Ger. orn. i. 55. t. 23. 24.—Faucon pelerin. Buff. ois. i. 249. t. 16. Pl. enl. 430.—Peregrine Falcon. BRIT. ZOOL. i. n. 48. t. 20. Arct. zool. ii. 202. n. 97. Lewin, brit. b. i. t. 12. Lath. syn. i. 73. n. 52. sup. 18. Will. orn. 76. t. 8.

125

β. Tartarian Peregrine Falcon.—74. β. *F. peregrinus tartaricus*.

The wings are rufous; the toes are remarkably long.

F. tartarius. Briff. orn. 100. n. 6. B. Lath. ind. orn. i. 33. n. 72. β.—Faucon de Tartarie, ou de Barbarie. Bellon, ois. 116.—Tartarian Falcon. Lath. syn. i. 73. n. 52. A.

Inhabits Europe and the north of Asia and America.—This species is migratory, and it is suspected, by Dr Gmelin, that it may only differ from the Gentil Falcon, already described, in consequence of being of a different age. To the above two varieties of the Peregrine, Mr Latham adds a third, Ind. orn. i. 33. n. 72. γ. which seems to be the same already described as a variety of the Common Falcon, under the name of Spot-winged, F. NO. 114. especially as the same synonyms are referred to in both cases.

126

30. Variegated Falcon.—75. *Falco versicolor*. 89.

The cere is yellow; the head and upper parts of the body are white, with light reddish brown spots; the under parts are white, the breast being marked with a few rusty spots.

F. versicolor. Lath. ind. orn. i. 33. n. 73.—Spotted Falcon. BRIT. ZOOL. n. 55. t. 26. Lewin, brit. b. i. t. 13. Lath. syn. i. 74. n. 53.

Inhabits England.—Is about the size of the Common Buzzard: The bill is black; the wings are dusky, and barred with ash colour; the outer tail quills are barred with lighter and darker brown, the middle quills with white and deep brown; the rump is white; the legs are yellow and very strong.

127

31. Booted Falcon.—76. *Falco pennatus*. 90.

The cere and legs, which are feathered to the toes, are yellow; the body is blackish brown above, varied with dirty grey; the under parts are yellowish brown, with blackish longitudinal streaks.

F. pennatus. Lath. ind. orn. i. 19. n. 34.—*F. pedibus pennatis*. Briff. orn. 120.—Faucon Pata. Briff. orn. 4to. vi. app. 22. t. 1.—Booted Falcon. Lath. syn. i. 75. n. 55.

Its

Its place unknown.—Is of the same size with the Common Gyrfalcon, measuring a little more than nineteen inches long; the bill is blackish; the head and scrag, or back of the neck, are tawny grey, with blackish lines; the eye-lids are yellow; the tail is brown, spotted with white at the edges, grey at the point, and blackish a little higher up; the claws are black.

128

32. Chocolate Falcon.—77. *Falco spadiceus*. 91.

The cere is yellow; the whole body is a deep bay or chocolate colour, in some parts tinged with rusty; the primary wing quills are black, their exterior webs, towards the lower end, being pure white; the legs, feet, and toes, are feathered.

F. spadiceus. Forster, phil. transf. lxii. 281. Amer. catal. p. 9. Lath. ind. orn. i. 27. n. 57.—Chocolate Falcon. Forster, loc. cit.—Chocolate-coloured Falcon. Arct. zool. ii. 201. n. 94. t. 9. f. 2.—Bay Falcon. Lath. syn. i. 54. n. 34. A.—Placentia Falcon. Lath. syn. i. 76. n. 57. sup. 19.

129

β. White-rumped Chocolate Falcon.—77. β. *F. spadiceus leucourus*.

The rump is white.

White-rumped Falcon. Lath. syn. i. 54. n. 34. B.

Inhabits Hudson's Bay and Newfoundland.—This species preys much on birds of the duck genus; it sits on a rock by the side of the water, watches their rise from diving, and instantly pounces on them. It is about one foot ten inches long; the bill is black; the five outmost tail quills have their exterior webs dusky, and their inner webs blotched with black and white; the two middle tail quills are varied with black and ash colour; the white edges of the wing quill feathers, mentioned in the character, form a distinct white shield; the wings reach to the end of the tail; the toes are remarkably short.

130

33. St John's Falcon.—78. *Falco Sti johannis*. 92.

The cere, and feathered legs, are yellow; the body is brown, marked on the back scrag, scapulars, and tail coverts, with oblique, black, and dirty white bars; the under parts are sparingly marked with white and yellowish spots; the tail is barred with ash colour and black, and has a white tip.

F. Sti johannis. Lath. ind. orn. i. 34. n. 74.—St John's Falcon. Arct. zool. ii. 200. n. 93. t. 9. f. 1. Lath. syn. i. 77. n. 58.

Inhabits Hudson's Bay and Newfoundland.—Is one foot nine inches long: The head is deep brown, with a short dusky bill; the legs are clothed with feathers to the toes, which are very short and yellow.

131

34. Sacre.—79. *Falco sacer*. 93.

The cere and legs are blue; the back, breast, and first coverts of the wings, are spotted with brown; the tail is marked with kidney shaped spots.

F. sacer. Briss. orn. 98. n. 4. M. Raj. av. 13. n. 2.—Sacre. Will. orn. 77. Buff. ois. i. 246. t. 14. Lath. syn. i. 77. n. 59.

Inhabits

Inhabits Europe and Tartary.—In Tartary this species is employed in hunting, being more particularly flown at the White Heron; it is remarkably hardy in bearing cold. The feet are feathered to the toes.

132

β. American Sacre.—79. β. *F. sacer americanus*.

The back, wing quills, and tail quills, are brown, with paler bars; the hind part of the head is mottled with white; the whole under side of the body is white, each feather having a dusky spot in the middle.

F. sacer americanus. Lath. ind. orn. i. 34. n. 75. β.—Speckled partridge hawk, from hudson's bay. Forster, phil. trans. lxii. 382.—Sacre. Arct. zool. ii. 202. n. 96.—American Sacre. Lath. syn. i. 78. n. 59. A. sup. 20.

Inhabits Hudson's Bay and other parts of North America.—Weighs two pounds and a half, and measures two feet long: It preys much on the White Grouse. The female lays two eggs, in desert places, in April or May, and the young are able to fly about the middle of June. The head is dusky brown, with a dusky bill, which is toothed on the upper mandible; the back is dusky brown; the scapulars, coverts, and primary wing quills are deep brown, elegantly barred transversely with white; the thighs are covered with very long brown feathers, spotted with white; the fore parts of the legs are feathered almost to the feet; the cere and legs are bluish.

133

35. Newfoundland Falcon.—80. *Falco novae-terrae*. 94.

The cere and legs are yellow; the hind head is rusty; the body is brown above, and rusty, with deeper blotches, below; the tail is crossed with four bars of lighter and deeper brown.

F. Novae-terrae. Lath. ind. orn. i. 34. n. 76.—Newfoundland Falcon. Arct. zool. ii. 201. n. 95. Lath. syn. i. 79. n. 60.

Inhabits Newfoundland.—Is twenty inches long; the irides are deep yellow; the crown, back, scapulars, and wing coverts are brown, edged with paler; the thighs are mottled ash, with round dusky spots, and having four large dark blotches near the knees; the legs are strong and feathered half way down to the feet.

134

36. Starry Falcon.—81. *Falco stellaris*. 95.

The legs are blue; the upper part of the body is blackish, with star like spots; the under parts are varied with black and white.

F. stellaris. Briff. orn. 103. n. 11. Lath. ind. orn. i. 35. n. 77.—*F. cyanopus*. Klein, av. 52. n. 18.—Blue-footed Falcon. Will. orn. 82. § 11.—Starry Falcon. Lath. syn. i. 79. n. 61.

Inhabits Europe.—Resembles the Peregrine Falcon in size and general appearance, but the wings are shorter, and the tail is longer; the irides are golden yellow; the eggs are of a light reddish, with lighter spots.

135

37. Northern Falcon.—*Falco hyemalis*.

The cere and legs are yellow; the head and upper parts of the body are deep brown; the

the under parts of the body are rusty brown with white bars; the tail has four brown bars, and is white at the end. Lath. ind. orn. i. 35. n. 78.

F. hyemalis. Syft. nat. ed. Gm. i. 274. n. 96. and 96. β .—Northern Falcon. Lath. syn. i. 79. n. 62.—Winter Falcon. Arct. zool. ii. 209. n. 107.

Inhabits New-York during winter.—The *female*, which is the Winter Falcon of the Arctic zoology, has the under parts of the body white, with heart-shaped brown spots, and the scrag is streaked with white. In the *male* the scrag is whitish, the body is slender, and the legs are long. This species is about the size of the Ring-tail Hawk, being about eighteen inches long.

136

38. Rhomboidal Falcon.—*Falco rhombeus.*

The legs are yellowish; the body is grey on the upper, and brown, with rhombic spots, on the lower part; the tail quills have eleven oblique black bars. Lath. ind. orn. i. 35. n. 79. Syn. sup. 35.

Inhabits near the Ganges, and other parts of India.—Is nineteen inches long; the head and back of the neck are black; the bill is dusky or leaden coloured; the back, wings, and tail are grey, with black bars.

137

39. Black-necked Falcon.—*Falco nigricollis.*

The legs are yellow; the body is reddish with black bars; the crown and neck are streaked with black; the throat is black; the tail quills are blackish at the end. Lath. ind. orn. i. 35. n. 80. Syn. sup. 30. 100.

Inhabits Cayenne.—The bill is black; behind each eye is a black ridge.

138

40. White-necked Falcon.—*Falco albicollis.*

The legs are yellow; the head, neck, fore part of the back, the breast, and belly, are white; the wings are black with white spots; the feathers of the interscapular region are marked with square black spots. Lath. ind. orn. i. 36. n. 81. Syn. sup. 30. 101.

Inhabits Cayenne.—Is about one foot ten inches long: The black quill feathers of the wings are spotted on the inside with white from their origin to the middle.

139

41. Red-headed Falcon.—*Falco meridionalis.*

The cere and chin are yellow; the head and neck are rufous, with black or dark brown streaks; the belly is whitish, with narrow black bars; the four middle tail quills have each one, and the outer ones each six, pale bars. Lath. ind. orn. i. 36. n. 82. Syn. sup. 33. 107.

Inhabits Cayenne.—This species measures nineteen inches in length.

140

42. Crested Falcon.—83. *Falco cirrhatus.* 97.

The cere and legs, which are feathered, are yellow; the head is furnished with a tuft,

or crest, which hangs backwards ; the body is black on its upper, and streaked with black and white on its under parts.

F. cirrhatus. Lath. ind. orn. i. 36. n. 83.—*F. indicus cristatus*. Briss. orn. 104. n. 12.—*F. indicus cirrhatus*. Raj. av. 14. n. 12.—*Faucon huppé*, des indes. Buff. o.f. i. 271. n. 4.—Crested indian Falcon. Will. orn. 82. n. 12. Lath. syn. i. 80. n. 63. sup. 20.

Inhabits India.—About the size of the Goshawk : The bill is dusky blue ; the irides are yellow ; the scrag is tawny ; the tail is transversely barred with black and ash colour ; the claws are black.

141

43. Pied Falcon.—84. *Falco melanoleucos*. 98.

The legs are yellow ; the head, neck, back, shoulders, and wing quills, are black ; the under parts of the body, the wing coverts, and the tail, are white.

F. melanoleucos. Penn. ind. zool. 4to. p. 12. t. ii. Lath. ind. orn. i. 36. n. 85.—*Faucon à collier*, des indes. Sonner. voy. ii. 182.—Black-and-white Falcon, Kaloe Koeroelgoya, of the Cingalese. Penn. ind. zool. loc. cit.—Black-and-white indian Falcon. Lath. syn. i. 81. n. 65. sup. 20.

Inhabits Ceylon and India.—This is a small species, weighing only ten ounces, and measuring fifteen inches long : The bill, claws, and the middle wing coverts are black ; the irides are reddish yellow ; the eyes are surrounded with white dots ; the legs are slender. This species lives on mice, rats, and lizards. The female is grey, the wing coverts being marked with three black spots ; the sides of the belly, the thighs, and under side of the rump are white, with reddish streaks. Lath.

142

44. Ceylonese Falcon.—85. *Falco ceylanensis*. 99.

The cere is yellow ; the body is milk white ; the hind head has two long pendent feathers.

F. ceylanensis. Lath. ind. orn. i. 36. n. 84.—Ceylonese crested Falcon. Lath. syn. i. 82. n. 66.

Inhabits Ceylon.—The bill of this species is dusky.

143

45. Grey Falcon.—86. *Falco griseus*. 100.

The cere and legs are yellow ; the body is dusky grey above, and white, with oblong black spots, below ; the tail is long, its two middle quills being longer, and of an uniform colour, and the rest spotted.

F. griseus. Lath. ind. orn. i. 37. n. 86.—Grey Falcon. BRIT. ZOOLOG. 1. n. 49. Lewin, brit. b. i. t. 15. Lath. syn. i. 82. n. 67.

Inhabits Europe.—One individual was shot in Yorkshire in 1762. It is about the size of a Raven. The bill is strong, short, much hooked, and bluish ; the cere, and edges of the eye-lids are yellow ; the irides are red ; the head is small, flattened at the top, the fore part deep brown, the hind part white, the sides and throat cream coloured ; the wings are longer than the tail ; the first quill feathers are black, with a white tip, the rest being bluish grey, having their inner webs irregularly spotted with white ; the legs are long, naked, and yellow.

144

46. Brown Gyrfalcon.—87. *Falco Gyrfalco*. 27.

The cere is blue; the legs are yellow; the body is brown, the lower parts being marked with brown bars; the sides of the tail are white. Faun. suec. 64.

F. Gyrfalco. Lath. ind. orn. i. 32. n. 68.—Gerfalcon islandus. Briss. orn. 108. Brun. orn. bor. n. 9. Muller. n. 73.—Gerfault d'island. Buff. ois. i. 239. t. 13. Briss. 4to. orn. i. 373. A. t. 31. Pl. enl. 210.—Iceland Falcon. Gent. magaz. 1771. 297. fig. Lath. syn. i. 71. n. 50. B. parag. 2.—Brown Jerfalcon. Lath. syn. i. 82. n. 68.

Inhabits Europe, particularly Iceland.—Lives on herons, cranes, and pigeons: This bird has sometimes blue legs; the bill is strong, much hooked, and its upper mandible is sharply angulated at its edges; the head is pale rusty, streaked longitudinally with dusky; the neck, breast, and belly are white, with heart-shaped spots; the thighs are white, with deep brown short cross bars; the back and wing coverts are dusky or brown, with white spots and edges to the feathers; the exterior edges of the primary wing quills are dusky, mottled with reddish white, the inner being barred with white; the tail quills are crossed with fourteen or more narrow bars, alternately white and dusky.

145

47. White Gyrfalcon.—88. *Falco candicans*. 101.

The cere and legs are bluish ash; the body is white with dusky bars, lines, or spots.

F. islandus. Lath. ind. orn. i. 32. n. 69.—Gyrfalco. Aldr. orn. i. 471. t. p. 473. Raj. av. 13. n. 3.—Accipiter muscoviticus. Ger. orn. i. 60. t. 30.—Gerfault. Briss. orn. i. 370. n. 19. t. 30. f. 2. Buff. ois. i. 239. t. 13. Pl. enl. 215. (446? 462?)—Gerfalcon. Will. orn. 78. n. 3.—Gyrfalcon. BRIT. ZOOLOG. n. 47. ARCT. ZOOLOG. ii. 221. F. Lewin, brit. b. i. t. 16.—White Jerfalcon. Lath. syn. i. 83. n. 69. sup. 21.

146

β. Iceland Gyrfalcon.—88. β. *Falco candicans islandicus*.

The upper parts of the body are brown, the back and wings being spotted with white; the under parts are white, with black spots.

Gerfault d'island. Briss. orn. i. 373. t. 31.—Iceland Jerfalcon. Lath. syn. i. 84. n. 69. A.—Dusky Falcon? ARCT. ZOOLOG. ii. 220. F.

Inhabits Iceland, and the north of Scotland rarely.—Is about the size of the Goshawk, and is reckoned, especially in Denmark, the best kind of Falcon for game, being reserved in Iceland for the use of the king, and bought, particularly the white variety, at a high price. The bill is strong, much hooked, of a blue-ash colour, and black at the tip; the claws are leaden coloured; the orbits and irides are blue: The irides of the Iceland variety are yellow.

147

48. Surinam Falcon.—89. *Falco sufflator*. 17.

The cere and legs are yellow; the body is whitish brown; the eyelids are bony.

F. sufflator. Lath. ind. orn. i. 37. n. 87.—Surinam Falcon. Lath. syn. i. 85. n. 70.

Inhabits Surinam and Cayenne.—When irritated or frightened, we are informed, by Mr Rolander, that this species has the power of inflating the skin of the head till it equals the rest of the body in

size. On the upper part of the body the plumage is brown, the bases of all the feathers being white; the under parts of the body and the tail quills are yellow, spotted with white and brown; the nostrils have a fleshy lobe between them.

148

49. Laughing Falcon.—90. *Falco cachinnans*. 18.

The cere and legs are yellow; the eyebrows are white; the body is varied with brown and whitish; the crown is white, and surrounded with a black circle.

F. cachinnans. Lath. ind. orn. i. 37. n. 88.—Laughing Falcon. Lath. syn. i. 85. n. 71.

Inhabits South America.—This species is reported, by Mr Rolander, to emit a kind of laugh when any person looks at it: The upper parts of the body, the back, wings, and rump are brown; the neck, chin, breast, belly, and under surface of the wings are white; the tail is barred with black and yellow.

149

50. Streaked Falcon.—*Falco melanops*.

The cere and legs are yellow; the body is black, with white spots; its under side is white; the head and neck are white, with black streaks; the space round the eyes is black; the tail quills are black, having a white band in the middle. Lath. ind. orn. i. 37. n. 89. Syn. sup. 34. 109.

Inhabits Cayenne.—This species is about the size of a Rook, being fifteen inches and a half long; The black space round the eyes is of an oval form, growing narrow and pointed at its back part.

150

51. Notched Falcon.—*Falco bidentatus*.

The bill is brown, having two tooth-like processes; the body is leaden coloured; the breast and belly are reddish; the ventlet is white; the wing quills have each several, and the tail quills each three white bars. Lath. ind. orn. i. 38. n. 9. Syn. sup. 34. 110.

Inhabits Cayenne.—Is fourteen inches long: The bars on the outer webs of the tail quills are pale brown, but on the inner webs they are white.

151

52. Common Lanner.—91. *Falco Lanarius*. 24.

The cere is yellow; the legs and bill are blue; the under side of the body is marked with longitudinal black spots. Faun. suec. n. 62.

F. Lanarius. Lath. ind. orn. i. 38. n. 92.—*Lanarius*. Gefn. av. 76. Aldr. orn. i. 488. Raj. av. 15. n. 13. Briff. orn. 105. n. 16.—*Lanier*. Buff. ois. i. 243.—*Lanneret*. Albin. av. ii. t. 7.—*Lanner*. BRIT. ZOOL. n. 51. t. 23. Arct. zool. ii. 225. K. Will. orn. 82. n. 13. Lewin, brit. b. i. t. 17.—*Brown Lanner*. Lath. syn. i. 86. n. 72. sup. 21.

Inhabits Europe, the Uralian, Baraba, and Tartarian deserts, Iceland, Ferroe, and Sweden, and is rarely found in Britain.—This species, which is about the size of the Common Buzzard, is much esteemed in Falconry; it builds its nest on low trees, and is migratory: The legs are short; the cere is sometimes bluish; the breast is white tinged yellow, with brown spots; the primary wing quills and

and the tail are dusky, the latter being marked on both webs, and the former only on the inner webs with oval rusty spots; there is a white line over each eye. In the female, the spots on the tail and wings are whiter than on the male.

152

β. White Lanner.—*Falco Lanarius albicans*.

The cere and legs are yellow; the under parts of the body are whitish; the wing quills are blackish.

F. albicans. Syst. nat. ed. Gm. i. 276. n. 102. Lath. ind. orn. i. 38. n. 93.—*Lanarius albicans*. Briff. orn. 107. n. 18. Aldr. orn. i. 380. f. p. 181.—White Lanner. Lath. syn. i. 87. n. 73.

153

γ. Spot-tailed Lanner.—*Falco Lanarius celiurus*.

The two middle tail quills are grey, the rest being spotted with white. Syst. nat. ed. Gmel. i. 276. n. 102. β. Aldr. orn. i. 380. f. p. 183.

Inhabits Europe.—These two varieties are placed as a distinct species by Dr Gmelin, though he at the same time expresses his belief that they do not essentially differ from the Common Lanner.

154

53. Blue Hawk.—93. *Falco cyaneus*. 10.

The cere is white; the legs are tawny; the body is of a hoary blue colour; over each eye is a white arched line, which likewise surrounds the chin.

F. cyaneus, mas. Lath. ind. orn. i. 39. n. 94.—*Lanarius cinereus*. Briff. orn. 106. n. 17.—Oiseau S. Martin. Buff. ois. i. 212. Pl. enl. n. 459.—Blue Hawk. Edw. av. v. 33. t. 225.—Hen-harrier. BRIT. ZOO. n. 58. t. 28. Lewin, brit. b. i. t. 18. Hayes, brit. b. t. 1. Will. orn. 72. Albin, ii. t. 5. Lath. syn. i. 88. n. 74. sup. 22.—Grau-weiße Geyer. Frisch. av. t. 79. 80.

Inhabits Europe and Africa.—This species is frequently found in Britain on heathy and marshy moors; it is about seventeen inches long, weighing about twelve ounces, and the wings measure three feet two inches between their tips, when extended; it preys on small birds and lizards, and is destructive to poultry: The bill is black, and the cere, which is usually white, is sometimes yellow; the irides are yellow; the hind head is white, with pale brown spots; the breast and belly are white, the former being streaked with dusky; of the tail quill feathers the two middle ones are grey on both webs, while the rest are grey on their outer and white on their inner webs, and all are streaked with dusky.

155

54. Ring-tail Hawk.—94. *Falco pygargus*. 11.

The cere and legs are yellow; the body is ash coloured, the belly being paler, with oblong reddish spots; the orbits are white. Scop. an. i. 14.

F. cyaneus, fem. Lath. ind. orn. i. 39. n. 94.—*F. torquatus*. Briff. av. i. 345.—*Pygargus*. Alb. av. ii. t. 5. and iii. t. 3. Will. orn. t. 7. Raj. av. 17. n. 5.—*Subbuteo*. Gefn. av. 48.—*Soubuteo*. Buff. ois. i. 215. t. 9. Pl. enl. 443. 480.—Ring-tail. BRIT. ZOO. n. 59. Will. orn. 72. Lewin, brit. b. i. t. 18. f. Hayes, brit. b. t. 2. Lath. syn. i. 89. n. 75. sup. 22.

Inhabits Europe and the temperate regions of Siberia.—Is about nineteen inches and a half long; the bill is pale; the irides are yellow; the tail is longish, is barred with dusky and dotted with white.

On

On the *male* the under parts of the body have transverse spots, which are ranged longitudinally on the *female*. Mr Latham considers this species as the female of the one immediately preceding.

156

55. Hudson's Hawk.—95. *Falco hudsonius*. 19.

The cere and legs are yellow; the back is brown; the eyebrows are white; the wings have each a bluish shield.

F. hudsonius. Lath. ind. orn. i. 40. n. 94. β .—*F. pygargus canadensis*. Ger. orn. i. 66. t. 44.—*Accipiter freti hudsonus*. Briff. av. 6. app. 18.—Ring-tail Hawk. Edw. av. t. 107.—Ring tail Falcon. Arct. zool. ii. 209. n. 106.—Hudson's Bay Ring-tail. Lath. syn. i. 91. n. 76.—White-rumped bay Falcon. Lath. syn. i. 54. n. 34. B.

Inhabits the country about Hudson's Bay.—This species is one foot nine inches and a half long: The bill and claws are black; the under parts of the body are white, with reddish brown spots; the two middle tail quills are brownish, or dusky, the outmost are white, and the rest are bluish ash, the whole having transverse orange-brown bars; the legs are long and very slender; the rump is white, both above and below, encircling the tail. This bird has the same manners with the Blue Hawk; it skims along the ground, in search of mice, frogs, and small birds, and builds sometimes on the lower parts of trees, and sometimes on the ground: It is sometimes found of a deep rust colour, entirely plain except the rump and tail.

157

56. Scarlet Hawk.—96. *Falco Buffoni*. 103.

The cere is blue, and the legs yellow; the upper part of the body is scarlet; the under parts are reddish buff colour; the eyebrows are yellow; the tail is barred with pale and dusky brown.

F. Buffoni. Lath. ind. orn. i. 40. n. 94. γ .—Cayenne Ringtail. Lath. syn. i. 91. n. 76. A.

Inhabits Cayenne.—Is two feet long: The bill and claws are black; the inner webs of the primary wing quills are dusky, the outer webs being bluish ash colour, with dusky bars; in the secondary quills these are less evident; the whole wing quills are white at the tips.

158

57. Marsh Hawk.—97. *Falco uliginosus*. 104.

The cere and legs are orange coloured; the body is brown above, and the under parts are bright rusty; the tail has four transverse black bars.

F. uliginosus. Lath. ind. orn. i. 40. n. 95.—Marsh Hawk. Arct. zool. ii. 208. n. 105. Lath. syn. i. 90. n. 75. A. Edw. av. iv. t. 291.

Inhabits Jamaica and Pennsylvania.—In the latter country it is found only in summer, frequenting marshy places, where it preys on small birds, frogs, serpents, and lizards, and migrates in winter: It is two feet long; the bill is bluish; the orbits are orange-coloured, with hazel irides; a black line extends from the angle of the mouth to beyond the eyes, above which a white line furrounds the cheeks, and meets with one from the opposite side at the back of the neck; the head, neck, and upper part of the breast are varied with black and rusty; the coverts of the wings are brown; the legs are strong, thick, and short.

Dr Gmelin remarks in this place that this and the three species immediately preceding, N^o. 155. 156. 157. are very strongly connected together; they are considered, in some measure, as varieties of the same species by some authors, particularly by Mr Latham, who gives the general name of Ring-tail to them all.—T.

159

58. Stone Falcon.—98. *Falco Lithofalco*. 105.

The cere is yellow; the body is ash coloured on the upper, and reddish, with longitudinal brown spots, on the lower parts; the tail is ash coloured, blackish towards the tip, and terminated with white.

F. Lithofalco. Lath. ind. orn. i. 47. n. 115.—Lithofalco. Briff. orn. 101. n. 8.—Lithofalco, f. Dendrofalco. Raj. av. 18. n. 8.—Rochier. Buff. ois. i. 286. Pl. enl. 447.—Stone Falcon, or Tree Falcon. Will. orn. 80. Lath. syn. i. 93. n. 77.

Inhabits Europe.—Is about the size of the Common Kestrel, being very little more than a foot long; the bill is bluish ash; the irides are yellow; the two middle tail quills are uniformly ash coloured, but the rest are barred with black.

160

59. Mountain Falcon.—99. *Falco montanus*. 106.

The legs are yellow; the upper part of the body is a brown ash colour; the chin and throat are spotted with whitish; the tail is ash coloured at the base, blackish in the middle, and white at the tip.

F. montanus. Raj. av. 13. n. 4. Briff. orn. 101. n. 9. Klein, av. 52. n. 10. Lath. ind. orn. i. 48. n. 116.—Mountain Falcon. Will. orn. 78. Lath. syn. i. 93. n. 78.

161

β. Ash-coloured Mountain Falcon.—99. β. *F. montanus cinereus*.

The body is ash coloured above, and pure white beneath; the two outer tail quills are white. Lath. ind. orn. i. 48. n. 116. β. Briff. orn. 102. n. 9. A.

F. montanus fecundus. Will. orn. t. 9.—Ash-coloured Mountain Falcon. Lath. syn. i. 94. n. 78. A.

Inhabits Europe.—This species is a little smaller than the Peregrine Falcon, and is suspected by Dr Gmelin to be only a variety of the Tree Falcon. The spots on the neck are sometimes rusty, and sometimes black, and sometimes the neck and breast are entirely black; in the full grown adult the head is black. The Ash-coloured variety measures one foot nine inches long; its bill and claws are black; the irides are yellow; the under parts of the body are pure white.

162

60. Common Kestrel.—100. *Falco Tinnunculus*. 16.

The cere and legs are yellow; the back and wings are purplish red, dotted with black; the breast is streaked with brown; the tail is rounded. Scop. an. i. 16.

F. Tinnunculus. Lath. ind. orn. i. 41. n. 98.—Tinnunculus, Cenchris. Gefn. av. 54. Aldr. orn. i. 356. t. p. 358. 359. Raj. av. 16. n. 16. Briff. av. i. 393. n. 27.—Creffierelle. Buff. ois. i. 280. t. 18. Pl. enl. n. 401. 471.—Gheppio. Cetti, uc. fard. 47. Zinnan. uov. 88. t. 15. f. 78.—Rother falk,

falk, and Rothel geyer. Frisch. av. t. 84. 85.—Kestrel, Kestril, Stannel, or Windhover. BRIT. ZOOL. n. 60. ARCT. ZOOL. ii. 226. M. Will. orn. 84. t. 5. Sloan, jam. 294. Albin, iii. t. 5. 7. Lewin, brit. b. i. t. 19. *male*, and t. 19. F. *fem.* Hayes, br. b. t. 4. Lath. syn. i. 94. n. 79.

In the *male* the crown and tail are light grey, the latter having a black bar near the end : In the *female* the head is reddish, the crown being streaked with black ; the back, wing coverts, and tail are rusty, with black bars. The male weighs six ounces, and the female eleven.

163

β . Grey Kestril.—100. β . *F. Tinnunculus griseus*.

The plumage is grey. S. G. Gmel. it. 49. t. 10. Lath. ind. orn. i. 42. n. 98. β . Syn. i. 95. n. 79. B.

- 164

γ . Lark Kestril.—100. γ . *F. Tinnunculus alaudarius*.

Of a reddish colour, streaked with brown, the under parts marked with longitudinal brown spots ; the tail is reddish grey, streaked transversely with brown, the quills being blackish toward the ends and tipped with white. Lath. ind. orn. i. 42. n. 98. γ .

Accipiter alaudarius. Briss. orn. 110. n. 22.—Maeuse falk. Frisch. av. t. 88.—Lark Hawk. Lath. syn. i. 95. n. 79. A.

Inhabits Europe, Siberia, and Tartary.—Is found about old buildings, and preys on small birds, mice, and insects : It migrates into Sweden and other parts of the north in the early part of spring, along with the White Wagtail : Formerly this species was trained for catching partridges and other small birds.

165

61. Bohemian Hawk.—101. *Falco bohemicus*. 107.

The legs are yellowish ; the body is ash coloured on the upper, and white on the lower parts ; the orbits are white ; the outer webs of the five outmost wing quills are black.

F. bohemicus. Lath. ind. orn. i. 43. n. 100.—Maeuse habicht, Miffylauce. J. Meyer, boehm. abhandl. vi. 313.

Inhabits the mountains of Bohemia.—This species scarcely exceeds a foot in length ; it goes abroad only in the evening in search of mice : The bill is yellow near the angle of the mouth ; the irides are yellow ; the tail is long and pointed ; the legs are thickish and feathered below the knees ; the claws are black and rounded.

166

62. Fishing Falcon.—102. *Falco piscator*. 108.

The legs are brown ; the plumage of the head is longish and ash coloured ; the upper parts of the body are ash coloured, the under parts are pale yellowish white ; the upper surface of the tail is light brown, its under surface a bluish ash.

F. piscator. Lath. ind. orn. i. 43. n. 101.—Faucon pecheur. Dampier, voy. iii. 318.—Faucon pecheur de Senegal, ou Tanas. Buff. ois. i. 275. Pl. enl. 478.—Fishing Falcon. Lath. syn. i. 95. n. 80.

Inhabits Senegal.—This species lives by catching fish, which it tears to pieces before swallowing them. The bill and irides are yellow ; the feathers on the upper parts of the body are edged with rusty brown ; those of the under parts are spotted on the middle with brown.

167

63. Brown Hawk.—103. *Falco badius*. 109.

The legs are pale yellowish; the head and upper parts of the body are brown; the under parts are white with small femilunar yellow spots; the tail is pale brown, with four darker stripes.

F. badius. Lath. ind. orn. i. 43. n. 102.—Brown Hawk. Brown, illust. 6. t. 3. Lath. syn. i. 96. n. 81.

Inhabits Ceylon.—Measures thirteen inches long: The bill is blue, with a black tip; the irides are yellow; the feathers of the wing coverts are edged with white; the shoulders are spotted with white; the claws are black.

168

64. Aquiline Falcon.—104. *Falco aquilinus*. 110.

The cere and legs are yellow; the upper part of the body is blue; the under parts are reddish white; the neck is purplish red.

F. formosus. Lath. ind. orn. i. 38. n. 91.—Petite aigle d'amerique. Buff. ois. i. 142. Pl. enl. n. 417.—Red-throated Falcon. Lath. syn. i. 97. n. 82. sup. 26.

Inhabits South America.—Is from sixteen to eighteen inches long. This species has some affinity to the Vultures, as the sides of the head are downy, being scarcely covered with feathers; the eyelids are bristly; the bill is blue; the orbits are yellow; the irides are orange coloured; the claws are black. The *female* is twenty-three inches long; her body is blackish blue; the throat is dark purple; the hind part of the belly and the thighs are white.

169

65. American Hawk.—105. *Falco fuscus*. 111.

The cere is ash coloured; the legs are yellow; the body is waved with black, being brown ash on the upper, and whitish on the under parts.

F. fuscus. Lath. ind. orn. i. 43. n. 103. Miller, illust. t. 18.—American brown hawk. Lath. syn. i. 98. n. 84.

Inhabits America.—This is about the size of the Sparrow Hawk, which it likewise resembles in general appearance; the bill is of a light leaden colour; the crown and sides of the head are streaked longitudinally with white; the belly is reddish brown; the tail is brownish ash, with three transverse dusky brown bars, and pale at the tip; the claws are black.

170

66. Sparrow Hawk.—106. *Falco Nifus*. 31.

The cere is green; the legs are yellow; the belly is white, waved with grey; the tail is barred with blackish. Scop. an. i. 17.

F. Nifus. Lath. ind. orn. i. 44. n. 107.—Accipiter. Briss. orn. 89. n. 1.—Accipiter fringillarius. Gefn. av. 51. Aldr. orn. i. 344. t. p. 346. 347. Bellon, av. 19. b. Raj. av. 18.—Nifus striatus, and Nifus sagittatus. Frisch, t. 90. 91. 92.—Moscheutus. Aldr. orn. 345.—Epervier. Buff. ois. i. 225. t. 11. Pl. enl. n. 412. 466. 467.—Sparviere. Cett. uc. fard. 51.—Sparfhok. Faun. suec. n. 68. Muller, n. 71. Strom. 235.—Sperber. Gunth. nest. t. 6. Sparrow Hawk. BRIT. ZOOL. n. 62. Arct. zool. ii. 226. N. Alb. av. iii. t. 4. and i. t. 5. Lewin, brit. b. i. t. 20. and t. 3. f. 2. Will. orn. 86. Lath. syn. i. 99. n. 85. sup. 26.

171

β. Spotted Sparrow Hawk.—106. β. *F. Nifus maculatus*.

The back has a few white spots.

F. nifus maculatus. Lath. ind. orn. i. 45. n. 107. β.—*Accipiter maculatus*. Briss. orn. 90. A.—
Spotted Sparrow Hawk. Lath. syn. i. 100. n. 85. A.

172

γ. White Sparrow Hawk.—106. γ. *F. Nifus lacteus*.

The whole body is of an uniform milk white.

F. Nifus lacteus. Lath. ind. orn. i. 45. n. 107. γ.—*Accipiter lacteus*. Briss. orn. 90. B.—White Sparrow Hawk. Lath. syn. i. 100. n. 85. B.

Inhabits Europe, Asia, Africa, and Madeira.—This species is found very far north; it is very bold, and preys on poultry, partridges, pigeons, and small birds; it is very much addicted to fly after larks, and is employed in falconry for that species of game. The *male* measures twelve, and the *female* fifteen inches long: The bill is bluish; the head, back, wing coverts, and tail, are sometimes bluish grey, at other times deep brown edged with rust colour; in the male the bluish or dove-like colour prevails; the chin, breast, and belly are whitish yellow, which is darker on the male, with dark brown or orange waves, which are more numerous and better defined on the female; the tail has five broad black bars, and is white at the tip.—In the second, or Spotted, variety the body has white spots; the female is brown, and the male, as in the former variety, or Common Sparrow Hawk, verges towards bluish; the under surface of the tail is variegated with alternate brown and white bars.—One individual of the White variety was shot in England, and is now in the cabinet of Dr Davies. *Lath.*

173

67. Dubious Falcon.—107. *Falco dubius*. 112.

The cere and legs are yellow; the head is dusky, streaked with rust colour; the upper parts of the body are brown, the feathers edged with rust; the under parts are dirty white with oblong brown streaks; the tail is long, of a dusky ash colour, with four broad black bars.

F. dubius. Lath. ind. orn. i. 44. n. 104.—Dubious Falcon. Arct. zool. ii. 213. n. 112. Lath. syn. sup. 37.

Inhabits New York and Carolina.—Is about ten inches long, and weighs six ounces. This species resembles the Sparrow Hawk in the marks and colour of the tail, and the Merlin in the spots on the breast; it gets the trivial name from Mr Pennant, who is *dubious* whether it should not be considered as a variety of the Pigeon Hawk. The bill is dusky; the irides are yellow; the primary wing quills are dusky ash, barred with black, and having their inner webs marked with oval transverse rusty spots.

174

68. Dusky Falcon.—108. *Falco obscurus*. 113.

The cere and legs are yellow; the hind head and nape are spotted with white; the upper parts of the body are dusky brown; the under parts whitish, with black streaks, or longitudinal lines; the tail is short, tipped with white, and crossed with four broad and four narrow dusky bars.

F. obscurus. Lath. ind. orn. i. 44. n. 105.—Dusky Falcon. Arct. zool. ii. 213. n. 113. Lath. syn. sup. 38.

Inhabits New York.—This is smaller than the Dubious Falcon: The bill is bluish, its upper mandible being armed with a sharp process; the head, back, and the wing and tail coverts are dusky brown, the feathers being slightly edged with rusty; the primary wing quills are dusky, marked on the inner webs with oval pale rusty spots.

175

69. Pigeon Hawk.—109. *Falco columbarius*. 21.

The cere and legs are yellow; the upper parts of the body are brown; the lower parts whitish; the tail is brown, with four narrow white bars.

F. columbarius. Lath. ind. orn. i. 44. n. 106.—Accipiter carolinensis. Briss. orn. 110. n. 21.—Epervier des pigeons. Buff. ois. i. 238—Pigeon Hawk. Catesb. carol. i. t. 3. Lath. syn. i. 101. n. 86. sup. 27.

Inhabits North America.—This species is about ten and a half inches long; it preys on small birds, and is migratory; the bill is whitish with a black tip; the irides are yellow; the whitishness of the under parts of the body has a yellowish tinge, and is streaked with brown; the claws are black.

176

β. Grey Pigeon Hawk.—*F. columbarius griseus*.

The crown, back, wing coverts, and rump, are bluish grey, each feather being streaked with black in the middle.

Pigeon Falcon. Arct. zool. ii. 212. n. 111.

Inhabits, with the former, from Hudson's Bay to Carolina.—The bill is dusky; the hind head is spotted with reddish white; the cheeks, breast, and belly are white, with large oblong black spots; the primary and secondary wing quills are dusky, with large oval white spots on their inner webs; the tail is long and black, with four cross bars of bluish grey, and tipped with white. This variety is from ten to twelve inches long, and weighs six ounces; it appears in Hudson's Bay in May, where it breeds and remains all summer, retiring south in autumn; it feeds on small birds, and when disturbed by mankind flies round in circles, making a screaming noise; it builds in hollows of rocks or decayed trees, laying from two to four eggs, which are white with red spots.

177

70. Guiana Falcon.—110. *Falco superciliosus*. 22.

The cere, legs, and eyelids, are yellow; the body is brown, waved with whitish; the wing quills are rusty, with black bars.

F. superciliosus. Lath. ind. orn. i. 45. n. 108.—Guiana Falcon. Lath. syn. i. 102. n. 87.

Inhabits Guiana and Surinam.—This species is about the size of a Magpie, and has a general resemblance to the Sparrow Hawk: The upper parts of the body are brown, as are the under parts and thighs, which are marked with numerous black waved lines; the inner margins of the secondary wing quills are whitish; the tail is black with two broad ash coloured bands, and is ash coloured at the tip; the ventlet, or under side of the rump, is white with a few black streaks; the rump is variegated

gated with black and white; the eye-brows are naked and prominent on the under edges; the straps are beset with black divaricating bristles; the bill and claws are black; the lower wing coverts are white, with very fine short black lines.

178

71. Ingrian Falcon.—111. *Falco vespertinus*. 23.

The cere, legs, and eyelids, are yellow; the ventlet and thighs are rusty. S. G. Gmel. it. i. 67. ii. 163. Lepechin, it. i. 230.

F. vespertinus. Lath. ind. orn. i. 46. 109.—Kobez, Derbnitschok. Decouv. russ. ii. 142.—Ingrian Falcon. Lath. syn. i. 102. n. 88. sup. 27.

Inhabits Ingria, the whole of Russia, and Siberia.—This species builds on the very topmost branches of trees, or expels Magpies from their nests, and takes possession; it preys much on Quails, and goes abroad chiefly in the evening and night. It is about the size of a Pigeon; the body is bluish red; the belly is bluish white; the head is brown, having a yellow bill, with a brown tip; the tail has twelve quill feathers, which are brown on both surfaces; the wing quill feathers are bluish-white, the first seven primaries being tipped with blackish; the legs are naked.

179

72. Permian Falcon.—112. *Falco vespertinoides*. 114.

The cere, legs, and eyelids, are yellow; the thighs are black; the neck, breast, and belly, are brownish with white spots. Falk. it. iii. 329.

F. vespertinoides. Lath. ind. orn. i. 46. 110.

Inhabits Permian, and the Ifettenian and Bafchkirian districts of Siberia.—This species is only about half the size of the one immediately preceding, and weighs very little more than two ounces.

180

73. Great-billed Falcon.—113. *Falco magnirostris*. 115.

The cere and legs are yellow; the body is brown above, and white, with rusty streaks, beneath; the tail is barred with black and white.

F. magnirostris. Lath. ind. orn. i. 46. n. 111.—Epervier à gros bec, de Cayenne. Buff. ois. i. 237. Pl. enl. n. 464.—Great-billed Falcon. Lath. syn. i. 103. n. 89. sup. 27.

Inhabits Cayenne.—This species is larger than the Sparrow Hawk, but has shorter legs, and the bill, which is black, is considerably thicker and longer; the irides are orange coloured; the feathers on the upper part of the body and breast are brown, with rusty edges; the claws are black.

181

74. Criard Falcon.—*Falco vociferus*.

The legs are yellow; the body is of a grey ash colour, its under parts white; the larger and lesser wing coverts are black. Lath. ind. orn. i. 46. n. 112. Syn. sup. 38.

Petit Buse criarde. Sonner. voy. ii. 184.

Inhabits India.—This species is about the size of a Pigeon; it lives much in the rice fields, preying on frogs, and is very clamorous on the approach of mankind: The bill is short; the irides are yellow; the orbits are red and naked, and the eye-lids are furnished with eye-lashes.

182

75. Johanna Falcon.—*Falco johannensis*.

The legs are yellow; the body is rusty with small linear black spots; the chin is yellowish; the wing quill feathers are blackish brown; the tail is white, and wedge-shaped. Lath. ind. orn. i. 47. n. 113. Syn. sup. 32.

Inhabits the island of Johanna, or Hinzuan.—The bill is black, the base of the lower mandible being yellow.

183

76. Common Hobby.—114. *Falco Subbuteo*. 14.

The cere and legs are yellow; the back is brown; the nape is white; the belly is pale, with oblong brown spots. Faun. suec. n. 59.

F. Subbuteo. Lath. ind. orn. i. 47. n. 114.—F. Barletta. Ger. orn. i. 66. t. 45. 46. 47. 48.—Dendrofalco. Raj. av. 14. n. 8. Briss. av. i. 375. Frisch. t. 87.—Hobreaux. Buff. ois. i. 277. t. 17. Pl. enl. n. 431. 432.—Baumfalk. Gunth. nest. t. 73.—Hobby. BRIT. ZOOL. n. 61. Albin. i. t. 6. Lewin, brit. b. i. t. 21. Will. orn. 83. Lath. syn. i. 103. n. 90. sup. 28.

184

β. Northern Hobby.—*F. Subbuteo borealis*.

The crown, back, and wing coverts, are bluish black; the cheeks are white, with a black stroke reaching through them from the crown. Arct. zool. ii. 227. o.

Inhabits Europe and Siberia.—This species is about twelve inches long: It is migratory, and preys much on larks, which are said to be so terrified as frequently to take refuge in the bosoms of mankind, when pursued; from this circumstance this kind of Hawk was formerly in much request for flying at larks. The bill is blue; the orbits are yellow; the irides are chestnut, sometimes yellow; the cheeks have each a remarkable white semilunar spot; the outer tail quills are barred with blackish; the claws are black.

In the Northern variety the breast is white, with oblong black spots; the thighs and under side of the rump are pale orange; the inner webs of the primary wing quills are marked with oval reddish spots; the two middle tail quills are of a uniform dove colour, or bluish grey, the inner webs of the rest being spotted like the primary wing quills. The male weighs seven ounces.

185

77. Surinam Hobby — 115. *Falco aurantius*. 116.

The bill and legs are leaden coloured; the upper part of the body is dusky brown, with narrow whitish lines crossing each other; the chin is garnished with very long narrow whitish feathers; the throat and breast are orange coloured; the belly and tail are brown, with abrupt whitish streaks.

F. aurantius. Lath. ind. orn. i. 48. n. 117.—Orange breasted Hobby. Lath. syn. i. 105. n. 91.

Inhabits Surinam.—Is about the size of the Common Hobby, being fifteen inches and a half long: The bill is whitish at the base, and is three quarters of an inch long; the crown of the head, scrag, and wing coverts are uniformly coloured, without any spots; the throat is marked with round white spots; the belly is streaked with buff colour; the lower coverts of the tail are rusty; the tail is streaked with white near the base; the legs are long and slender, with black claws.—There is some disagreement.

disagreement in the descriptions of Mr Latham and Dr Gmelin; the former naturalist says the body is blackish, the back and base of the tail being marked with abrupt whitish streaks; the breast is tawny; the thighs are rusty; the belly is blackish, with streaks of a pale colour, like those on the back; the tail has neither spots nor streaks from its middle to the tip.

186

β. Smaller Surinam Hobby.—*F. aurantius minor*.

Is smaller than the former; the streaks on the body are more dusky; the chin is white, and the throat is orange coloured. Lath. ind. orn. i. 48. n. 117. β. Syn. sup. 28.

This variety is only ten inches long.

187

γ. Spotted Surinam Hobby.—*F. aurantius maculatus*.

The legs are tawny; the upper parts of the body are bluish black, with bluish streaks; the under parts of the body are streaked with white; the belly, ventlet, and thighs, are reddish. Lath. ind. orn. i. 48. n. 117. γ. Syn. sup. 29. 2d descr.

This variety is of the same size with the former; the chin and throat are reddish, with a white spot in the middle.

188

78. Spot-tailed Hobby.—116. *Falco plumbeus*. 117.

The cere is dusky; the legs are yellow; the body is ash coloured, the upper part of the back being of a blackish leaden colour; the inner webs of the tail quills have each three white spots.

F. plumbeus. Lath. ind. orn. i. 49. n. 118.—Spotted-tailed Hobby. Lath. fyn. i. 106. n. 92.

Inhabits Cayenne.—This species is about the size of the Sparrow Hawk: The bill and claws are black; the head and neck are ash coloured; the legs are short.

189

79. Common Merlin.—117. *Falco Aesalon*. 118.

The cere and legs are yellow; the head is rusty; the upper part of the body is bluish ash, with rusty spots and streaks; the under parts are yellowish white with oblong spots.

F. Aesalon. Lath. ind. orn. i. 49. n. 119.—*Aesalon*. Briss. orn. 111. n. 23. Raj. av. 15. n. 15.—*Accipiter Smerillus*. Ger. orn. i. 51. t. 18. 19.—*Kleinster roth falk*. Frisch, av. t. 89.—*Merlin*. BRIT. ZOO. n. 63. Will. orn. 85. t. 3. Lewin, brit. b. i. t. 22. Lath. fyn. i. 106. n. 93. sup. 29.

Inhabits Europe, and is found in Britain.—This species breeds in the northern parts, and retires to the more southern regions on the approach of winter; it is about the size of a Blackbird in the body, and measures a foot in length: The bill is bluish, but variable in its shade; the irides are dusky; the tail has from eight to fifteen transverse bars, or streaks, alternately dusky and reddish; the claws are black: The eggs are rounded, and of a brown-red colour.

190

β. New-york Merlin.—117. β. *F. Aesalon noveboracensis*.

The forehead is ash coloured; the crown, back, and wing coverts, chestnut; on each temple is a triangular white spot, edged with black; the tail is chestnut, with transverse black bars, its under surface being varied with black and white. Lath. syn. i. 107. n. 93. A.

Inhabits New York.—This variety is only nine inches long: In Mr Latham's Index ornithologicus, it is referred to the Domingo Merlin, and is supposed to be the female of the Carolina Merlin; Mr Pennant considers it as nearly allied to, if not altogether the same with, the Carolina Merlin; but in Mr Latham's Synopsis, and in the Systema Naturae of Dr Gmelin, these are made three distinct species.

191

γ. Caribbee Merlin.—117. γ. *F. Aesalon caribaeorum*.

Of a reddish colour above, and white beneath, with black spots on both.

F. Aesalon caribaeorum. Lath. ind. orn. i. 49. n. 119. β.—*Aesalon antillarum*. Briff. orn. 111. n. 24. Raj. av. 19. n. 3.—*Esmerillon Gry-gry*. Du Tertre, antil. ii. 253.—Caribbee Merlin. Lath. syn. i. 108. n. 93. B.

Inhabits the West India Islands.

192

δ. Falconers Merlin.—117. δ. *F. Aesalon falconariorum*.

Resembles the Hobby in its general habits and appearance, but is more allied to the Stone Falcon in other respects.

F. Aesalon falconariorum. Lath. ind. orn. i. 49. n. 119. γ.—*Esmerillon*. Pl. enl. n. 468.—*Esmerillon des fauconniers*. Buff. ois. i. 288. t. 19.—Falconers Merlin. Lath. syn. i. 109. n. 93. C.

This variety is not described, nor are we informed where it is found, but only that it was formerly employed in falconry; it probably inhabits the same countries with the Common or European variety.

193

80. Carolina Merlin.—118. *Falco Sparverius*. 20.

The cere is yellow; the head is brown, with a red crown; the belly is red; the wings are bluish.

F. Sparverius, *maf*. Lath. ind. orn. i. 42. n. 99.—*F. minor rufescens*. Brown, jam. 471.—*Aesalon carolinensis*. Briff. av. i. 386. t. 32. f. 1.—*Esmerillon de la cayenne*. Buff. ois. i. 291. Pl. enl. n. 444.—Little Hawk. Catesby, carol. i. t. 5.—Little Falcon, *male*. Arct. zool. ii. 211. n. 110. Lath. syn. i. 110. n. 94.

Inhabits Virginia, Carolina, and St Domingo.—This species is about the size of the Common Merlin, being eleven and a half inches long, and only three ounces and a half in weight: The bill and irides are yellowish; the head is bluish-ash; the crown, upper part of the body, and wing coverts, are orange brown, with transverse black streaks; the tail is reddish brown with small black spots; the legs are yellow;—The head of the *female* is surrounded with seven black spots.

194

81. Domingo Merlin.—119. *Falco dominicensis*. 119.

The cere and legs are yellow; the head is ash coloured; the body is reddish brown above, and dirty white below, both being spotted with black; the eight middle tail quills are chestnut, growing blackish toward the extremity, which is tipped with white.

F. Sparverius, *fem.* Lath. ind. orn. i. 42. n. 99.—*Aefalon dominicensis*. Briss. orn. i. 389. n. 26. t. 32. f. 2.—*Efimerillon de S. Domingue*. Pl. enl. n. 465.—*St Domingo Falcon*. Lath. syn. i. 111. n. 95.—*Little Falcon, female*. Arét. zool. ii. 212. n. 110.

Inhabits the island of St Domingo, or Hispaniola.—The bill is yellow, with a black tip; the irides are yellow; the outer tail quills of the *male* have their exterior webs and tips white, the interior webs being chestnut, with transverse black spots; in the *female* these have each five black spots on the white exterior webs, and the inner webs are uniformly chestnut coloured; the middle tail quills in both are chestnut, with white tips, and having a black spot near the extremities; the claws are white.

There is considerable discrepancy here in the descriptions and arrangement of Dr Gmelin, Mr Pennant, and Mr Latham: The two latter naturalists consider this last described bird as the female of the Carolina Merlin, and yet describe it differently from Dr Gmelin, who is quoted by Mr Latham. Mr Pennant informs us that the bill is short and much hooked; the crown is deep slaty blue, obscurely spotted with red; the hind part of the neck, the back, wing coverts, and tail, are variegated with bright rusty and black in narrow transverse bars; the primary wing quills are black; the under side of the neck, the breast, and belly are dirty white, with large rusty spots; the thighs and under side of the rump are white; the legs are long, slender, and orange coloured; the tail is crossed with eleven black and eleven bright rusty bars. The description given by Mr Latham, in his Index, agrees with that of Mr Pennant in the bars of the tail, but in the rest of the body it agrees with Dr Gmelin. Where naturalists of such reputation and experience differ so widely, the safest method is to give their different opinions, and leave the decision to farther inquiry.—T.

195

82. Minute Falcon.—120. *Falco minutus*. 32.

The cere is brown; the legs are yellow; the under part of the body is white; the tail quills are brown, with black bars.

F. minutus. Lath. ind. orn. i. 50. n. 121.—*Accipiter minor*. Briss. av. i. 315. t. 30. f. 1.—*Minute Falcon*. Lath. syn. i. 112. n. 96.

Inhabits the island of Malta.—This species is not larger in the body than a Thrush, and measures something less than a foot in length: The bill and claws are black; the body is brown above, varied with reddish; its under side is white, with transverse reddish brown streaks; the breast being sometimes marked with spots shaped like spear heads.

196

83. Bengal Falcon.—121. *Falco caerulescens*. 9.

The cere, eyelids, legs, and under part of the body, are yellow; the back is bluish black; the temples are surrounded by a white line.

F. caerulescens. Lath. ind. orn. i. 50. n. 120.—F. bengalensis. Briss. orn. i. 119. n. 38.—F. parvus indicus. Ger. orn. i. 66. t. 44. f. 1.—*Faucon de bengale*. Briss. app. 20. n. 38.—*Little black-and-orange indian Hawk*. Edw. av. t. 108.—*Bengal Falcon*. Lath. syn. i. 112. n. 97.

Inhabits

Inhabits Bengal.—This is one of the smallest of the genus, measuring only six inches and a half long: The bill is blackish; the hind head is white; the orbits are naked and yellow; the cheeks are white with a black streak through each; the tail is black, the two middle quills being uniform, while the rest have transverse white streaks on their inner webs; the claws are blackish.

197

84. Siberian Falcon.—122. *Falco regulus*. 120.

The cere is greenish; the legs are dusky yellow; the neck is surrounded by a rusty ruff, or collar; the body is leaden coloured above, and whitish, with rusty brown spots, below. Pall. it. 2. 707.

F. regulus. Lath. ind. orn. i. 50. n. 122.—Siberian Falcon. Lath. syn. i. 113. n. 98.

Inhabits Siberia.—This species is very rare, and exceedingly small, being even less than the preceding, and scarcely weighing half a pound. In general appearance, and in the two tooth-like processes of the bill, it resembles the Kestrel; the crown is brown, with blackish streaks; the back is streaked with brown, the shafts of the feathers being of that colour; the under part of the body is thickly interspersed with small rusty-brown dots; the tail quill feathers are black at the edges, white at the tips, leaden coloured near the extremity, and slightly barred on their under surfaces.

198

85. Tiny Falcon.—*Falco pumilus*.

The legs are yellow; the body is brown ash colour; its under parts whitish, with blackish bars; the crown is whitish.

F. tinus. Lath. ind. orn. i. 50. n. 123.—Tiny Falcon. Lath. syn. sup. 39.

Inhabits Cayenne.—This is one of the smallest species of the genus, which scarcely measures six inches from the tip of the bill to the base of the tail.

III. O W L.—3. *S T R I X*. 43.

The bill is hooked, and has no cere: The nostrils are oblong, being covered by reflected bristly feathers: The head is large, with large eyes, and wide passages to the ears: The tongue is cleft.

The genus of Owls differs from that of Falcons, in some measure as Moths differ from Butterflies; Owls and Moths flying about in the evening and night, while Falcons and Butterflies fly chiefly by day; the one being called Nocturnal or night birds, while the others are Diurnal or day birds. Owls prey, chiefly by night, on small birds, murine quadrupeds, and bats; their legs and feet are, for the most part, clothed with feathers or down, even to the origin of the claws; three of the toes stand forward, and one backwards, but the outer fore toe can be turned backwards occasionally, so as to act along with the back toe; in this way the feet are either perching or climbing, as is necessary at the time: The passages to the ears are large, and are provided with a membrane, which, when drawn back, resembles the eustachian tube of the human ear: The eyes are large, full, and protuberant, and

shine in the dark, that the animal may then see with greater clearness; during the day they are mostly kept shut, being unable to bear the glare of light, and, though birds of prey, they are then insulted by the small birds, when discovered by them in their retreats: The outermost wing quill feather is serrated, or jagged, on each of its edges: The claws are much hooked, and very sharp.

This genus is very conveniently subdivided into two parcels, which are distinguished by the presence or absence of a kind of horns or external ears, composed of feathers: In the first subdivision, called Eared Owls, or Horned Owls, some long feathers are erected round the auditory passages; these are sometimes very conspicuous, consisting of a number of considerable feathers; at other times they are scarcely perceptible except when erected, and consist but of one or two small feathers: In the second subdivision, called Earless Owls, these appendages are entirely wanting.

* Eared Owls.

199

1. Great Owl.—1. *Strix Bubo*. 1.

Of a large size, and tawny red colour. Faun. suec. n. 69. Scop. an. i. 18.

S. Bubo. Lath. ind. orn. i. 51. n. 1.—*Bubo*. Bellon, av. 25. a. Gefn. av. 234. Aldr. orn. i. 502.—*Bubo maximus*. Ger. orn. i. 84. t. 81. Wirsing. vog. t. 50.—Grand Duc. Buff. oif. i. 322. t. 22. Pl. enl. n. 435.—Gufo. Zinnar. uov. 96. t. 16. f. 85.—Schuffut, Uhu. Frisch. av. t. 93.—Eagle Owl. BRIT. ZOOL. n. 64.—Great horned Owl. Alb. av. ii. t. 9. Will. orn. 99. t. 12. Lewin, brit. b. i. t. 23.—Great eared Owl. Lath. syn. i. 116. n. 1. sup. 40.

200

β. Athenian Great Owl.—1. β. *S. Bubo atheniensis*.

Is of a fuller, or darker, colour, with blackish wings, and has slenderer legs. Lath. ind. orn. i. 51. n. 1. β.

Bubo italicus. Briff. orn. 140. n. 1. A. Borowfk. nat. ii. 77.—*Bubo secundus*. Will. orn. 63.—*Bubo minor*, f. *B. vulgaris*. Ger. orn. i. 85. t. 82. 83. ?—Black-winged horn Owl. Alb. av. iii. t. 6.—Eagle Owl. Will. orn. ang. 99. n. 2.—Athenian horn Owl. Edw. av. t. 227. Lath. syn. i. 118.

201

γ. Smooth-legged Great Owl.—1. γ. *S. Bubo nudipes*.

Resembles the Common Great Owl in every thing, except that the legs are naked. Lath. ind. orn. i. 52. n. 1. γ. Briff. orn. 141. n. 1. B.

Bubo tertius. Will. orn. 64.—Great horn Owl. Will. orn. ang. 100. n. 3.—Smooth-legged Owl. Lath. syn. i. 118.

202

δ. Variegated Great Owl.—1. δ. *S. Bubo variegata*.

The body is blackish yellow, variegated with white. Lath. ind. orn. i. 52. n. 1. δ.

S. Bubo magellanicus. Syst. nat. ed. Gm. 286. n. 1. δ.—Jacurutu. Marcgr. bras. 199.—Hibou des terres magellaniques. Buff. oif. i. 338. Pl. enl. 385.—Magellanic eared Owl. Lath. syn. i. 118.

Inhabits Europe, Calmuck Tartary, and South America.—This is the bird of Minerva, or *Noctua* of the ancients, who used the proverb, *Noctuas athenas mittere*, as we now say, ‘to send coals to Newcastle.’ It haunts the thickest coverts of the forest, and holes and caverns of decayed trees, rocks, and mountains, preying by night on hares, rabbits, moles, rats, and mice, and seldom on bats or amphibious

phibious reptiles. In size it equals some of the Eagles; the irides are yellow; the head and body are marked with lines and spots, elegantly varied, of black, brown, ash, and rusty colours; the wings are long; the tail is short, and marked with transverse dusky streaks; the legs are of a brick-dust red colour, and, except those of the Smooth-legged variety, are feathered to the roots of the claws; these are dusky, large, very much hooked, and sharp pointed.

203

2. Virginian Owl.—2. *Strix virginiana*. 13.

The upper parts of the body are brown, with fine zig-zag lines of ash colour, black and orange; the under parts are pale ash, with transverse brown lines; the throat and sides of the breast are orange, with brown streaks.

S. virginiana. Lath. ind. orn. i. 52. n. 2.—*Bubo virginianus*. Briss. orn. 141. n. 2. Ger. orn. i. 86. t. 84.—Horned Owl. Ellis, huds. 40. t. 2.—Great horned Owl, from Virginia. Edw. av. ii. t. 60.—Eagle Owl. Arct. zool. ii. 228. n. 114.—Virginian Eared Owl. Lath. syn. i. 119. n. 2.

Inhabits America, in both hemispheres, Northern Asia, as far east as Kamtschatka, and almost to the North Pole.—This species resembles the Great Owl, being variegated in a similar manner, but it is smaller, and the feathery ears are placed nearer to the base of the bill: Dr Gmelin supposes it may only be a variety, and Mr Pennant places it as such in his Arctic Zoology. The bill is black; the irides are golden yellow; the wings and tail are barred with dusky brown, and the latter has a number of cross ash coloured lines; the legs are clothed to the roots of the claws with soft light brown feathers; the claws are pale yellowish, or horn coloured.

204

3. Scandinavian Owl.—3. *Strix scandiaca*. 2.

The whole body is whitish, sprinkled with black spots. Faun. suec. n. 70.

S. scandiaca. Lath. ind. orn. i. 53. n. 6.—*Bubo lapponicus*. Briss. orn. 142. n. 3.—Scandinavian eared Owl. Lath. syn. i. 120. n. 3. Arct. zool. ii. 237. A.

Inhabits the mountains of Lapland.—This species is as large as a Turkey, and resembles the Snowy Owl, except in having ears. Dr Gmelin suspects this might likewise be considered as a variety of the Great Owl.

205

4. Ceylon Owl.—4. *Strix zeylonensis*. 14.

The upper part of the body is reddish brown, and the lower parts are yellowish white; the face is marked with reddish brown circles, which are streaked with black.

S. zeylonensis. Lath. ind. orn. i. 52. n. 3.—Great ceylonese horned Owl. Brown, illust. zool. 8. t. 4.—Ceylonese eared Owl. Lath. syn. i. 120. n. 4. sup. 41.

Inhabits Ceylon and Sumatra.—This species is nearly two feet long: The bill is pale; the irides are yellow; the ears are short and pointed; the primary wing quills, and the tail quills, are streaked transversely with black, white, and pale red; the legs are only half feathered.

206

5. Chinese Owl.—*Strix sinensis*.

The body is reddish brown, with wavy black lines; its under parts are streaked with reddish black, and barred with white. Lath. ind. orn. i. 53. n. 4.

Chinese eared Owl. Lath. fyn. fup. 4.

Inhabits China.—Is about the same size with the Long-eared Owl: The bill and legs are black; the secondary wing quill feathers are each marked with four blackish bars.

207

6. Coromandel Owl.—*Strix coromanda*.

The body is greyish red above, with reddish white spots; its under parts are pale red, with small semilunar black spots. Lath. ind. orn. i. 53. n. 5.

Hibou de Coromandel. Sonner. voy. ii. 186.—Coromandel eared Owl. Lath. fyn. fup. 44.

Inhabits India, on the Coromandel coast.—This species is considerably smaller than the preceding; the bill is black; the irides are yellow; the legs are reddish; the cheeks are white; the wing and tail quills are barred with reddish white.

208

7. Red Owl.—5. *Strix Afio*. 3.

Of a rusty or tawny red above, and ash coloured below; the wings being marked with five white spots.

S. Afio. Lath. ind. orn. i. 54. n. 10. Faun. groenl. n. 37.—Scops carolinensis. Briff. av. i. 497.—Little Owl. Catesby, carol. i. t. 7.—Red eared Owl. Lath. fyn. i. 123. n. 8.

Inhabits North America, and Greenland.—This species is ten inches and a half long: The upper parts of the body are marked with black streaks, and the lower with oblong black spots; the scapulars are marked with large white spots, which are probably the five white spots on the wings that are noticed in the character; the primary wing quills are barred with black, red, and white; the tail is red, with dusky bars; the legs are feathered to the origin of the claws.

209

8. Mexican Owl.—6. *Strix mexicana*. 15.

Is variegated with brown and black.

S. mexicana. Lath. ind. orn. i. 54. n. 9.—Afio mexicanus. Briff. orn. 146. n. 9.—Técolotl. Raj. av. 160.—Mexican eared Owl. Lath. fyn. i. 123. n. 7.

Inhabits Mexico, and New-spain.—The eyes are large, and have golden yellow irides.

210

9. American Owl.—7. *Strix americana*. 16.

The head and upper parts of the body are ash coloured; the under parts are rusty; the rump is white, with black spots; the wings and tail are rusty, with transverse ash coloured and grey streaks.

S. americana. Lath. ind. orn. i. 54. n. 8.—Afio americanus. Briff. orn. 145. n. 7.—Bubo ocreo-cinereus. Feuill. journ. des obs. ed. 1725. p. 59.—American eared Owl. Lath. fyn. i. 122. n. 6.

Inhabits South America.—Is about the same size with the next, or Long-eared Owl, of which both Dr Gmelin and Mr Latham suspect it may only be a variety: The bill is yellow; the irides golden yellow; the orbits are ash coloured; the legs and feet are yellow, with black claws.

211

10. Long-eared Owl.—8. *Strix Otus*. 4.

The ears are long, consisting each of six feathers. Faun. fœc. n. 71. Scop. an. i. n. 18.

S. otus. Lath. ind. orn. i. 53. n. 7.—Afio. Briff. av. i. 486.—*Otus*, Afio. Bellon, av. 25. n. 6. Gefn. av. 223. Aldr. orn. i. 525.—Moyen Duc, Hibou. Buff. oif. i. 342. t. 22. Pl. enl. n. 29.—Hibou, Canot. Carlev. nouv. fr. iii. 5. 6.—Rothes Kaeuzelin. Frisch. av. 99.—Horn Owl. Will. orn. 100. Albin, av. ii. t. 10.—Long-eared Owl. BRIT. ZOOL. n. 65. Lewin, brit. b. i. t. 24. Lath. syn. i. 121. n. 5. sup. 42.

212

β. Italian Long-eared Owl.—*S. Otus italicus*.

The general colour is darker than in the common variety. Lath. ind. orn. i. 54. n. 7. β.

Afio italicus. Briff. av. i. 491. A. Aldr. orn. 519. t. p. 523.—Italian eared Owl. Lath. syn. i. 122.

213

γ. Arctic Long-eared Owl.—*S. Otus arcticus*.

Is considerably smaller in size than the other two varieties. Arct. zool. ii. 229. n. 115.

Inhabits Europe, America, and the northern parts of Asia, as far as Astrachan, and is found in Egypt.—This species measures fourteen inches long, the Italian variety is a little larger, and the Arctic considerably smaller; it builds in trees, laying four white eggs in April; it never migrates, and is extremely clamorous. The feathers of the ears, or horns, are black and yellow, and very long; the irides are yellow; the back and wing coverts are variegated with dusky brown, grey, and rusty yellow; the breast and belly are pale yellow, with slender longitudinal brown streaks; the tail is barred with ash colour and dusky; the primary wing quills are barred with rust colour and dusky; the legs and feet are feathered to the claws.

214

11. Short-eared Owl.—9. *Strix brachyotos*. 17.

The ears are short; the upper part of the body is brown, the feathers being edged with yellow; the under parts are pale yellow, longitudinally streaked with dusky. Forster, phil. transf. lxii. 384. n. 2.

S. brachyotos. Lath. ind. orn. i. 55. n. 11.—Chouette, Grand Cheveche. Buff. oif. i. 372. t. 27. Pl. enl. n. 438.—Short-eared Owl. BRIT. ZOOL. n. 66. t. 31. Arct. zool. ii. 229. n. 116. Lewin, brit. b. i. t. 25. Lath. syn. i. 124. n. 9. sup. 43.

Inhabits Europe, Siberia, and America, and has been found in the Sandwich islands.—This species measures fourteen inches long; the ears consist of a single feather, which may be raised or depressed at pleasure, and are not in general very conspicuous, which has occasioned it to be supposed earless by some naturalists; it is very bold, and preys much on mice, watching for them like a cat, from which circumstance it is called, by the English in Hudson's Bay, the Mouse Hawk: The tail is dark brown, the middle feathers having a large yellow circle, with a brown spot in the center, on each web; the primary wing quills are dusky, with red bars; the thighs, legs, feet, and toes, are covered with yellow feathers: It never flies after its prey; breeds on the ground in the northern regions, and migrates southwards in autumn: This species sometimes varies to a yellowish colour, the feathers having oblique black bars. Mr Pennant refers the *Ulula cunicularia*, of Feuille, to this species, but it seems more properly to form a separate article among the Earless Owls, as arranged by Dr Gmelin.

215

12. Brazilian Owl.—10. *Strix brasiliiana*. 18.

The body is pale rusty brown above, with white spots; and whitish below, with rusty brown spots.

S. brasiliiana. Lath. ind. orn. i. 55. n. 12.—*Afio brasiliensis*. Briss. orn. 145. n. 8.—*Noctua brasiliensis*, Cabure. Raj. av. 26. n. 7.—*Ulula brasiliensis*. Klein, av. 57. n. 8.—Cabure, Caboure. Will. orn. 107. n. 8. Buff. ois. i. 383.—Brazilian eared Owl. Lath. syn. i. 125. n. 10.

Inhabits Brazil.—Is about the size of a Thrush; the wing quill feathers are barred with white; the bill, irides, legs, feet, and toes, are yellowish; the legs are short.

216

13. Mottled Owl.—11. *Strix naevia*. 19.

The body is grey, its under parts paler, and both are spotted with black and rusty; the feathers of the head and breast are dotted with black.

S. naevia. Lath. ind. orn. i. 55. n. 13.—Mottled Owl. Lath. syn. i. 126. n. 11. Arct. zool. ii. 231. n. 118. Faun. amer. sept. 9.

Inhabits New-york.—Is eleven inches long; breeds in May, and does not migrate. The face is white, with brown spots; the head, wings, and upper parts of the body, are mottled with ash colour and pale red; the scapulars, and wing coverts, have large white spots; the primary wing quills are spotted with black and pale rusty; the breast and belly are whitish grey, with longitudinal dusky ragged stripes; the legs and feet are feathered to the toes.

217

14. Indian Owl.—12. *Strix indica*. 20.

The back is dusky; the wing coverts are grey, with narrow longitudinal black lines; the breast is buff coloured, with small sagittal black spots; the wings are transversely barred with black and white.

S. Bakkamuna. Lath. ind. orn. i. 56. n. 14.—*Otus Bakkamoena*, Little horned Owl. Ind. zool. ed. 2d. n. iii. t. 3.—Little Hawk Owl. Ind. zool. ed. 1st. n. 3.—Indian eared Owl. Lath. syn. i. 127. n. 12.

Inhabits Ceylon.—This species is rare, and very small, as the figure in the Indian Zoology, which is said to be of the natural size, measures only four inches and a half long: The bill is dusky, and surrounded with long bristles; the head is deep ash colour, circularly striped with paler; the ears, or horns, rise from the base of the bill and diverge outwards, being dusky on their inner and white on their outer sides; the irides are scarlet; the orbits are pale ash, surrounded with yellowish brown; the legs are feathered only half way, their lower naked part, and the feet, are reddish yellow.

218

15. Sardinian Owl.—13. *Strix Zorca*. 21.

The bill is greenish yellow; the ears are composed of eight or nine feathers. Cetti, uc. fard. 60. Lath. ind. orn. i. 56. n. 15.

Inhabits Sardinia and Italy.—This species measures seven inches in length; it is solitary, does not migrate, and makes a howling noise; the feet and toes are naked.

219

16. Carniolic Owl.—14. *Strix carniolica*. 22.

The body is whitish ash, with transverse streaks and spots of blackish.

S. Giu. Scop. an. i. 19. n. 9. Kram. el. 323. n. 3. Lath. ind. orn. i. 56. n. 16.—Carniolic eared Owl. Lath. syn. i. 127. n. 13.

Inhabits the woods of Carniola.—This species nestles in the fissures of rocks, and cavities of decayed trees, laying two, three, or four eggs, and feeds its young with the *Scarabeus majalis*; it measures about eight inches long, and resembles the Little Owl, differing chiefly from it by having small ears, which are scarcely perceptible after death. The first six wing quill feathers, are spotted with white on one of their webs; the tail is spotted with brownish. The bird quoted from Kramer seems to vary from this in being variegated with very small waved lines of black, white, and brown.

220

17. Yaik Owl.—15. *Strix diminuta*. 23.

Of a reddish colour, and small size. Pall. it. ii. 707. n. 14.

S. diminuta. Lath. ind. orn. i. 56. n. 17.—Yaickan eared Owl. Lath. syn. i. 128. n. 14.

Inhabits the forests of the Uralian or Yaik mountains, in Siberia.—This species resembles the Great Owl in colours, and general make, but is vastly smaller, scarcely weighing one pound; the variegation of its feathers is likewise less elegant, and less distinctly marked.

221

18. Siberian Owl.—16. *Strix pulchella*. 24.

The body is grey, variegated with brown, rusty, and white. Pall. it. i. 466. n. 8.

S. pulchella. Nov. com. petr. xv. 490. t. 26. f. 1. Lepech. it. ii. t. 4. Lath. ind. orn. i. 57. n. 19.—Siberian eared Owl. Lath. syn. i. 130. n. 16. t. 5. f. 1.—Least horned Owl. Natural miscell. N^o. viii. t. 22.

Inhabits Siberia, near Catharinople, and on the southern shore of the Wolga.—Is rather more than nine inches long; the bill, legs, feet, and claws, are dirty whitish; the irides are yellow; the back is dirty ash colour; the wings are marked with oblong white spots; the tail is reddish, with brown bars and dots. Mr Latham says, that the body is hoary, waved with ash colour, the wings barred with hoary, and the nostrils smeared with white.

222

19. Scops Owl.—17. *Strix Scops*. 5.

The ears are each composed of one feather.

S. Scops. Lath. ind. orn. i. 56. n. 18.—Scops. Briff. av. i. 495. t. 37. f. 1. Aldr. orn. lib. viii. c. 4. Raj. av. 25. n. 3.—Scops, Petit Duc. Buff. ois. i. 353. t. 24. Pl. enl. n. 436.—Chiu, Alloccarello, Chivino. Zinnan, uov. 98. t. 16. f. 87.—Horn oder Ohreule. Gunth. nest. t. 40.—Scops eared Owl. Lath. syn. i. 129. n. 15. syn. 43.—Little horn Owl. Will. orn. 101. t. 12.

Inhabits Europe, but has not been discovered in Britain.—This species is very small, scarcely exceeding seven inches long; it preys on field mice; the ears are scarcely conspicuous after death: The plumage is variegated with grey, reddish, brown, and blackish, but is subject to considerable variety from difference of age; the legs are feathered, and spotted with brown; the toes and claws are brown.

** Earless Owls.

223

20. Snowy Owl.—18. *Strix Nyctea*. 6.

The plumage is white, with a few distant small dusky or brownish semilunar spots. Scop. an. i. 20.

S. Nyctea. Lath. ind. orn. i. 57. n. 20.—*Strix alba*, *freti hudsonis*. Briss. av. i. 522.—*Aluco albus diurnus*. Ger. orn. i. 89. t. 93.—*Ulula alba*. Klein, av. 65. n. 5.—*Harfang*. Faun. suec. n. 76. Buff. ois. i. 387. Pl. enl. n. 458.—*Hibou blanc d'Island*. Ander. isl. i. 85. t. 1.—Great white Owl. Edw. av. t. 61. Gent. mag. xli. t. p. 437.—Snowy Owl. Arct. zool. ii. 233. n. 121. t. tit. prae. Lath. syn. i. 132. n. 17. sup. 45.

224

β. Speckled Snowy Owl.—*S. Nyctea striata*.

Is marked with numerous semilunar brown spots. Nat. misc. N^o. xvi. t. 47.

Inhabits the northern parts of Europe, Asia, and America.—This species is almost equal in size to the Great Owl, being two feet long; it flies about in the day, and preys on herons, hares, murine quadrupeds, and birds, sometimes feeding on carrion; it makes a hideous howling noise, resembling the voice of a man in deep distress; it varies considerably in size, weighing sometimes three pounds, while other specimens scarcely weigh half as much; in winter it is often found, especially in the most northern regions, entirely white, but has generally a few small scattered crescent-like brown or dusky spots; the variety quoted from the Naturalist's Miscellany is remarkable for having a much greater number of these spots than usual. The head is smaller in proportion than in most species of the genus; the legs, feet, and toes, are thickly clothed with long soft downy white feathers to the claws; the bill and claws are black; the irides are yellow.

225

21. Swedish Owl.—19. *Strix Tengmalmi*. 44.

The body is grey, with round white spots. Tengmalm, in act. Stock. ann. 1783, trim. 1.

S. Tengmalmi. Lath. ind. orn. i. 64. n. 42. Arct. zool. sup. p. 60.

Inhabits the province of Upland, in Sweden.—This species, which was only lately discovered by Dr Tengmalm, is about the size of a blackbird; the bill is dusky, with a white tip, and having a black line stretching from its base to the eye, on each side; the eyes are surrounded with a circle of white feathers, which are clouded with dusky, or blackish; the head is grey, striped with white, and surrounded by a dusky collar or circle, which is spotted with white; the breast and belly are white, irregularly blotched with dusky; the primary wing quills are dusky, with white bars; the tail is dusky grey, with white stripes; the toes are feathered to the claws.

226

22. Barred Owl.—20. *Strix nebulosa*. 25.

The head, neck, breast, back, and wing coverts, are transversely barred with brown and whitish; the belly and ventlet are dirty white, with oblong brown longitudinal streaks; the tail is barred transversely with brown and whitish, and is white at the tip. Forster, phil. transf. lxii. 424.

S. nebulosa. Lath. ind. orn. i. 58. n. 23.—Barred Owl. Arct. zool. ii. 234 n. 122. Lath. syn. i. 133. t. 18.—Clouded Owl. Nat. misc. N°. ix. t. 25.—Grey Owl. Phil. trans. lxii. 386.

Inhabits Hudson's Bay and New York.—This is a large species, weighing three pounds, measuring two feet in length, and four feet in extent of wings; it preys on hares, mice, &c. The bill is pale yellow, and beset with strong bristles; the irides are yellow, and the eyes are surrounded by a large whitish circle; the primary wing quills are very distinctly barred with black and white; the legs, feet, and toes are feathered with whitish; the wings are shorter than the tail.

227

23. Sooty Owl.—21. *Strix cinerea*. 26.

The head, scrag, and wing coverts, are sooty, with narrow dirty white bars; the breast and belly are dirty white, much covered with large, oblong, dusky brown blotches.

S. cinerea. Lath. ind. orn. i. 58. n. 22.—Sooty Owl. Arct. zool. ii. 232. n. 120.—Cinereous Owl. Lath. syn. i. 134. n. 19. sup. 45.

Inhabits Hudson's Bay.—This species is as large as the last; it flies about in pairs, preying on hares, rabbits, &c.; breeds in the pine trees, laying two eggs, which are spotted with dusky, in the middle of May, and the young ones are able to fly in the end of July: The bill is whitish; the irides are yellow; the primary wing quills are deep brown, with broad bars of dusky, and pale ash coloured streaks; the tail is irregularly marked with oblique streaks of brown and dirty white; the eyes are surrounded with alternate black and pale ash coloured circular streaks; a part of the skin, from the chin along the breast and belly to the vent, is bare of feathers for near an inch in breadth; this last circumstance is an uncommon distinctive mark, if it is not merely accidental.

228

24. Spectacle Owl.—*Strix perspicillata*.

The head is white, smooth, and downy; the space round the eyes, the chin, and the upper part of the body, are reddish brown; the under parts of the body are reddish white, and the breast is barred with reddish brown. Lath. ind. orn. i. 58. n. 24. Syn. sup. 50. t. 107.

Inhabits Cayenne.—This species is smaller than the two preceding, measuring twenty-one inches long; the head is small, and is covered with a woolly-like downy plumage, having a yellow bill; the legs, feet, and toes are feathered to the claws.

229

25. Spotted Owl.—22. *Strix maculata*. 27.

The back and rump are white, with dusky spots; the breast and belly are dirty white, with numerous transverse reddish lines; the scapulars and wing coverts are white, with dusky reddish longitudinal bars.

S. Wapacuthu. Syft. nat. ed. Gm. 291. n. 27. Lath. ind. orn. i. 58. n. 21.—Wapacuthu Owl. Arct. zool. ii. 231. n. 119. Lath. syn. sup. 49.

Inhabits Hudson's Bay.—This is a large species, measuring two feet long, by four in extent, and weighing five pounds; it lives in the woods, preying on mice and small birds; builds on the bare ground,

ground, or mossy soil; the young are hatched in May, and fly in June, continuing entirely white for a long time after. It is called *Wapacuthu* by the Indians, which signifies Spotted Owl, and is reckoned a great delicacy by the European settlers. The bill is glossy black, and its base is beset with strong bristles; the irides are yellow; the space about the eyes, cheeks, and chin are white; the ends of the feathers on the head are black; the wing and tail quills are irregularly barred and spotted with black and pale red; the ventlet or under side of the rump is white; the legs are feathered to the toes, which are covered with hairs, and have very crooked claws.

230

26. Coquimbo Owl.—23. *Strix cunicularia*. 28.

The body is brown above, with white spots; its under parts are white; the legs are warty and hairy. Molin. chil. 233. Klein, av. 57. n. 9. Feuillé, obs. 562.

Noctua coquimbana. Briss. orn. 155. n. 11.—Coquimbo Owl. Lath. syn. i. 145. n. 33.

Inhabits Coquimbo in Chili.—This species is about the size of a Pigeon; it sometimes flies about in pairs during the day, preying on insects and reptiles; it breeds in long subterranean burrows, like Rabbits, laying four eggs, which are variegated with white and yellow.

231

27. Sacred Owl.—24. *Strix Aluco*. 7.

The head is rusty; the irides are black; the primary wing quills are serrated at the edges.

S. Aluco. It. oel. 69. Scop. an. i. 20. n. 4. Tengmalm, act. Stock. ann. 1782, trim. 2. n. 8. Gerin. orn. 90. t. 94.—*S. cinerea*. Raj. av. 26. n. 3.—*Ulula*. Gefn. av. 773. Aldr. orn. i. 540. Briss. av. i. 507.—Hulotte. Buff. ois. i. 358. Pl. enl. n. 441.—*Aluco Aldrovandi*. Will. orn. 104. t. 13.—*Grabeule*. Frisch, av. t. 94.—*Aluco Owl*. Lath. syn. i. 134. n. 20.

Inhabits Europe and Tartary.—This species is fifteen inches long; it is said to be considered as sacred by the Kalmucks, for having contributed to save the life of their great monarch Genghis Khan, but this is attributed to another species, the Common Owl, by Mr Pennant; perhaps it is to the Owl in general this respect is paid, and not to any particular species. In summer it dwells in the hollows of decayed trees in the woods, and in winter comes near the habitations of mankind; it lays four dirty grey eggs, employing the deserted nests of the Great Owl, Kestrel, Crow, or Magpie; the bill is of a yellowish or greenish white; the upper part of the body is of a dark rust colour, with whitish and black spots; the legs are white, with very small black dots.

232

28. Austrian Owl.—25. *Strix sylvestris*. 29.

The body is variegated with white and brown; the space round the eyes is white.

S. sylvestris. Scop. an. i. 21. n. 13. Lath. ind. orn. i. 61. n. 29.—Austrian Owl. Lath. syn. i. 136. n. 21.

Inhabits Carniola.—This species is about the size and general appearance of a middle sized common fowl: The covering of the head is rendered very elegant and singular by a radiated wreath of white feathers which runs across the fore-head from one ear to the other; the irides are fiery red.

233

29. White Owl.—26. *Strix alba*. 30.

The upper part of the body is reddish, spotted with grey; the under parts white; the wing and tail quills are reddish, the latter having white tips. Scop. an. 22. n. 14.

S. alba. Lath. ind. orn. i. 61. n. 30.—Austrian white Owl. Lath. syn. i. 136. n. 22.

Inhabits Austria.—Of the same size with the former, from which it is particularly distinguished by having a reddish border to the covering of the head; the bill is white.

234

30. Reddish Owl.—27. *Strix Noctua*. 31.

The body is pale reddish, with longitudinally oblong brown spots; the irides are brown. Scop. an. i. 22. n. 15.

S. Noctua. Lath. ind. orn. i. 61. n. 31.—Rufous austrian Owl. Lath. syn. i. 136. n. 23.

Inhabits Carniola.—This species is about the size of a Pigeon, and dwells in the woods.

235

31. Rusty Owl.—28. *Strix rufa*. 32.

The body is rusty, with brown spots; the irides are bluish. Scop. an. i. 22. n. 16.

S. rufa. Lath. ind. orn. i. 62. n. 32.—Ferrugineous austrian Owl. Lath. syn. i. 137. n. 24.

Inhabits the woods of Idria.—This is much of the same size and general appearance with the last, of which, perhaps, it should only be considered as a variety.

236

32. French Owl.—29. *Strix soloniensis*. 33.

The upper part of the body is very dark brown, mixed with tawny; its under part is white; the tail is white, with black lines crossing each other near the tip.

S. soloniensis. Lath. ind. orn. i. 62. n. 33.—*Ulula minor*, f. *Noctua minor*. Salerne, orn. 56.—Solognese Owl. Lath. syn. i. 137. n. 25.

Inhabits France, in the district formerly named Sologne.—This species measures fifteen inches in length; the crown of the head, and the outer circle of feathers round the face, are varied with white and reddish; the toes are pale.

237

33. Mountain Owl.—*Strix barbata*.

The space round the eyes, and the chin, are black. Lath. ind. orn. i. 62. n. 34. Syn. sup. 50.

Inhabits the eastern mountains of Siberia.—Has considerable resemblance to the Sacred Owl, but is in reality a different species: The bill and irides are yellow; the plumage is ash coloured; the primary wing quills are serrated on both edges; the blackness of the chin has the appearance of a beard at a distance.

238

34. Common Owl.—30. *Strix flammea*. 8.

The body is pale yellow above, with small white spots; and whitish below, with small blackish spots. Faun. suec. n. 73.

S. flammea. Lath. ind. orn. i. 60. n. 28.—*Aluco*. Briff. orn. 147. n. 2.—*Aluco minor*. Aldr. orn. i. 536. f. p. 538. Raj. av. 25. A. 1. Brun. orn. 17.—*Ulula altera*. Gefn. av. 775.—*Alloco*. Zinnan. uov. 99. t. 16. f. 85.—*Tuidara*. Marcgr. braf. 205.—*Effraie*, *Frefaie*. Buff. oif. i. 366. t. 26. Pl. enl. n. 440. 474.—*Schlefer Eule*, *Perl Eule*. Frisch, av. t. 97.—*Barn Owl*. Clayton, virgin. Phil. transf. iii. 589.—*Common barn Owl*, or *White Owl*. Will. orn. 104. t. 13.—*White Owl*. BRIT. ZOOL. n. 67. Arct. zool. ii. 235. n. 124. Albin, av. ii. t. 11. Lewin, brit. b. i. t. 26. Lath. fyn. i. 138. n. 26. fup. 46.

Inhabits Europe, America, and Northern Asia.—Is fourteen inches long, and weighs eleven ounces; this species is held sacred by the Monguls: The bill is white; the irides are dusky; the tail feathers are white on their inner webs, having obscure dusky bars on their outer webs; the pale yellow feathers of the head, back, and wing coverts have each two grey and two white spots placed alternately on each web; the legs are feathered, and the feet are covered with short hairs.

239

35. Screech Owl.—31. *Strix stridula*. 9.

The body is of a tawny or rusty colour, spotted and powdered with dusky; the third wing quill is longer than the rest. Scop. an. i. 22. n. 12.

S. Stridula. Lath. ind. orn. i. 58. n. 25.—*Strix*. Gefn. av. 738. Aldr. orn. 561. f. p. 563. Raj. av. 25. Briff. av. i. 500.—*Strix orientalis*. Haffelqu. it. 233.—*Chat-huant*. Buff. oif. i. 362. t. 25. Pl. enl. n. 437.—*Strige*. Zinnan. uov. 100. t. 16. f. 89.—*Skrik Ugglä*. Faun. suec. n. 77.—*Braune oder stock Eule*, *Gelbliche oder braune Eule*. Frisch, av. t. 95. 96.—*Ivy Owl*, or *Common brown Owl*. Will. orn. 102. t. 14.—*Tawny Owl*. BRIT. ZOOL. n. 68. Lewin, brit. b. i. t. 27. Arct. zool. ii. 237. B. Lath. fyn. i. 139. n. 27.

Inhabits Europe, and Tartary, perhaps likewise in Hudson's Bay.—Is fifteen inches long, and weighs nineteen ounces; the breast and belly are yellowish, mixed with white, and streaked longitudinally with dusky; the tail is blotched, barred, and spotted with black and pale rusty; the irides are dusky; the legs, feet, and toes are feathered to the claws.

240

36. Brown Owl.—32. *Strix Ulula*. 10.

The body is brown above, with white spots; the tail quills are marked with very narrow white bars. Faun. suec. n. 78. Nozem. vog. t. 33. 34.

S. Ulula. Lath. ind. orn. i. 60. n. 27.—*Noctua major*. Briff. av. i. 511.—*Noctua faxatilis*. Gefn. av. 622. Aldr. orn. i. 545.—*Chouette*, *Grand Cheveche*. Buff. oif. i. 372. t. 27. Pl. enl. 438.—*Grey Owl*. Will. orn. 103.—*Great brown Owl*. Albin. iii. t. 7.—*Brown Owl*. BRIT. ZOOL. n. 69. Arct. zool. ii. 236. n. 125. Lath. fyn. i. 140. n. 28.—*Ulula flammeata*, *Stein Eule*. Frisch, av. t. 98.

241

β. Lesser Brown Owl.—32. β. *S. Ulula minor*.

Of a smaller size.

Noctua minor aucuparia. Nozem. nederl. vog. t. 37.

Inhabits Europe and Newfoundland.—This species measures fourteen inches long, but the Lesser variety is considerably smaller; The head, wings, and back have black spots; the shoulders and wing coverts

coverts are spotted with white; the breast is pale ash colour, with dusky, jagged, longitudinal streaks; the irides are chestnut; the feet are feathered to the claws.

The description in Mr Latham's Index differs so considerably from this, though he refers to the same authorities, that it has certainly been taken from a different variety, perhaps even from a different species; it is necessary however to observe that he marks some of the quotations with a note of interrogation, thereby denoting his own doubts of the identity: According to him, "the upper parts of the body are reddish, with longitudinally disposed brown spots; the under parts are whitish, with small brown streaks; the tail is barred with brown; the irides are yellow."

242

37. Arctic Owl.—*Strix arctica*.

Of a rusty brown colour, spotted with black on the upper, and streaked with narrow brown lines on the under parts of the body; the bill, the orbits, and a band under the wings, are brown. Sparrm. mus. carlf. fasc. ii. t. 51.

S. Ulula arctica. Lath. ind. orn. i. 60. n. 27. β .

Inhabits the northern provinces of Sweden.—This species is eighteen inches long; the irides are yellow; the tail is barred with black and rusty; the legs and feet are white, with black claws.

243

38. Canadian Owl.—33. *Strix funerea*. 11.

Of a brown colour, with a few large white spots above; the under parts are white, with transverse narrow brown bars; the tail is very long, with broad bars of brown, and narrow white bars.

S. funerea. Faun. suec. n. 75. Lath. ind. orn. i. 62. n. 35. Phil. transf. lxi. 385.—*Strix canadensis*. Briff. orn. 151. n. 6.—*Noctua canadensis*. Ger. orn. i. 88. t. 90.—*Chat-huant de canada*. Briff. av. i. 518. n. 6. t. 37. f. 2.—*Chouette de canada*, *Grand Cheveche de canada*. Buff. ois. i. 391. n. 5.—*Canada Owl*. Lath. syn. i. 142. n. 29.

Inhabits Europe and North America.—The head is black, with small white spots; the upper mandible of the bill is white; the five outer primary wing quills are not spotted on their outer webs; the middle tail quills are slightly whitish at the tips; the irides are yellow.

244

39. Hudsons Owl.—34. *Strix hudsonia*. 34.

The brown feathers of the upper parts of the body are edged with white; the under parts are white, with narrow, transverse, black lines; the bill and irides are orange yellow.

S. funerea hudsonia. Lath. ind. orn. i. 62. n. 35. β .—*Strix freti hudsonis*. Briff. orn. 151. n. 7.—*Strix noctuaeformis*, f. *Falco noctuaeformis*. Ger. orn. i. 91. t. 98.—*Caparacoch*. Buff. ois. i. 385. n. 2.—*Little Hawk Owl*. Edw. av. ii. t. 62.—*Hawk Owl*, *Cabetituch*. Arct. zool. ii. 234. n. 123. Lath. syn. i. 143. n. 30.

Inhabits Hudson's Bay.—This species, which is hardly larger than the Sparrow Hawk, goes about during the day in search of prey: The crown is brown, spotted with white; the face is white, mixed with

with brown, and edged round with black; the rump is brown, with paler bars; the tail and wings are long.

245 40. Ural Owl.—35. *Strix uralensis*. 35.

The body is white, each feather having an oblong longitudinal brown spot in the middle. Lepech. it. ii. t. 3. Pall. it. i. 455. n. 7.

S. funerea uralensis. Lath. ind. orn. i. 63. n. 35. γ.—Chouette à longue queue, de Siberie. Pl. enl. n. 463.—Ural Owl. Lath. fyn. i. 148. n. 37.

Inhabits the Uralian mountains in Siberia.—This species is about the size of a Hen: The bill is pale waxen yellow; the irides and eyelids are black; the orbits are ash coloured; the rump is white; the tail is long and wedge shaped. These two last species are suspected to be varieties of the Canadian owl, by Dr Gmelin, and are ranked as such by Mr Latham: Mr Pennant quotes them indiscriminately without hinting at any variation.

246 41. Caspian Owl.—36. *Strix accipitrina*. 36.

The body is yellowish above; its under parts are yellowish white, having each side smeared longitudinally with blackish, and the belly is dotted with black; the irides are citron yellow. Pall. it. i. 455. n. 6. S. G. Gmel. it. ii. 163. t. 9.

S. Ulula accipitrina. Lath. ind. orn. i. 60. n. 27. γ.—Caspian Owl. Lath. fyn. i. 147. n. 36.

Inhabits near the Caspian.—This species is of the same size with the Brown Owl, of which it is reckoned a variety by Mr Latham; by Mr Pennant it is quoted as a synonyme of the Canadian Owl, and Dr Gmelin suspects it may be a variety of that species. The bill is black; the under surfaces of the wings and the ventlet are white; the wing quill feathers are yellowish outwardly, and white, chequered with black, on their under surfaces; the tail is blackish, rounded, shorter than the wings, barred with white, and whitish at the sides.

247 42. Java Owl.—37. *Strix javanica*. 37.

Of an ash colour, reddish in some parts, with white and black spots; the under parts are dirty white, reddish in some parts, and spotted with black. De Wurmb, in Lichtenb. magaz. iv. 2. 10. Lath. ind. orn. i. 64. n. 39.

Inhabits Java.—Its size is not mentioned.

248 43. New-zealand Owl.—*Strix novae-zeelandiae*.

Of a brown colour, the feathers being edged with tawny; the orbits are tawny; the tail is brown, with paler bars.

S. fulva. Lath. ind. orn. i. 65. n. 45.—New-zealand Owl. Lath. fyn. sup. 48. n. 39.

249 β. Spotted New-zealand Owl.—*S. novae-zeelandiae maculata*.

Of a brown colour above, with white spots; the under parts are tawny.

S. novae-zeelandiae. Syft. nat. ed. Gm. 296. n. 38.—*S. fulva maculata*. Lath. ind. orn. i. 65. n. 45. β .—New-zealand Owl. Lath. fyn. i. 149. n. 39.

Inhabits New-zealand.—This species is about eleven inches long; Mr Latham suspects that the two varieties may be different sexes; in the first the hinder part of the back, the rump, and the ventlet are brown, without any spots; the thighs are brown, with white spots; in both the bill is black at the tip, and the eyes are yellow.

250

44. Cayenne Owl.—39. *Strix cayennensis*. 39.

The body is longitudinally streaked with reddish, and waved transversely with brown; the irides are tawny yellow.

S. cayennensis. Lath. ind. orn. i. 64. n. 41.—Chat-huant de Cayenne. Buff. ois. i. 391. Pl. enl. n. 442.—Cayenne Owl. Lath. fyn. i. 146. n. 35.

Inhabits Cayenne.—This species is of the same size with the Screech Owl; the bill is of a pale horn colour; the claws are black.

251

45. Domingo Owl.—40. *Strix dominicensis*. 40.

The under parts of the body are reddish; the breast is slightly spotted.

S. dominicensis. Lath. ind. orn. i. 64. n. 40.—Chouette de S. Domingue, Grand Cheveche de S. Domingue. Buff. ois. i. 392. n. 6.—St. Domingo Owl. Lath. fyn. i. 146. n. 34.

Inhabits the island of Saint Domingo.—This species has considerable resemblance to the Brown Owl, but the bill is considerably larger, stronger, and more hooked; the spots on the breast are distant, and disposed longitudinally.

252

46. New-spain Owl.—41. *Strix Tolchiquatli*. 41.

The body is black above, variegated with pale yellow, white, and tawny; its under parts are white; the irides are pale yellow.

S. Tolchiquatli. Lath. ind. orn. i. 63. n. 37.—*Noctua mexicana*. Briff. orn. 153. n. 10.—Chouette de Mexique. Briff. av. i. 524. n. 10.—Tolchiquatli. Raj. av. 160.—New-spain Owl. Lath. fyn. i. 145. n. 32.

Inhabits New Spain.—The bill, claws, and wing coverts are black; the plumage is very thickly set.

253

47. Chichiſtli Owl.—42. *Strix Chichiſtli*. 42.

Is tawny, variegated with white, brown, and black; the eyes are black, and the eyelids blue.

S. Chichiſtli. Lath. ind. orn. i. 63. n. 36.—*S. Mexicana*. Briff. orn. 152. n. 9.—Chat-huant de Mexique. Briff. av. i. 523. n. 9.—Chichiſtli. Raj. av. 160.—Mexican Owl. Lath. fyn. i. 144. n. 31.

Inhabits Mexico and New-spain.—This species is about the size of a common Heron.

254

48. Acadian Owl.—43. *Strix acadica*. 43.

The upper part of the body is bright bay, or reddish brown, with white spots; the under parts being white, mixed with rusty.

S. acadica. Lath. ind. orn. i. 65. n. 44.—Acadian Owl. Lath. syn. i. 149. n. 38. t. 5. f. 2.

Inhabits Acadia, or Nova Scotia, and other parts of North America.—This species measures seven inches in length: The bill is dusky; the irides are yellow; the crown of the head is spotted with paler colour; the region of the eyes is ash coloured; the toes are brown.

255

49. Little Owl.—44. *Strix passerina*. 12.

The wing quills have five rows of white spots.

S. passerina. Lath. ind. orn. i. 65. n. 46.—*Noctua minor*. Briff. av. i. 514. Raj. av. 26. n. 6.—*Noctua minima*. Gefn. av. 620. Aldr. orn. i. 543. f. p. 544.—Cheveche, Petite Chouette. Buff. ois. i. 377. t. 28. Pl. enl. 439.—Little Owl. BRIT. ZOOL. n. 70. Albin. ii. t. 12. Will. orn. 105. t. 13. Lewin, brit. b. i. t. 29. Edw. av. t. 228. Lath. syn. i. 150. n. 40.—*Civetta*. Olin. 65. Cetti, uc. fard. 66. Zinnar, uov. 97. t. 16. f. 4.—*Klenistes Kauzlein*. Frisch, av. t. 100.

Inhabits Europe and North America.—This species is from seven to eight inches in length; it is remarkably solitary, and only goes out at night, preying on bats, mice, and grasshoppers; it builds its nest either in the hollows of decayed firs, or half way up among the thickest branches: The bill is whitish brown; the head, back, and the wing coverts are light brown, with white spots; the breast is whitish, variegated with rusty; the irides are pale yellow; the tail is barred with white, and all its quill feathers are marked with regularly disposed round white spots; the feet are feathered to the claws.

256

β. American Little Owl.—*S. passerina americana*.

Is considerably smaller; the eyes are surrounded with white circles; the plumage has fewer white spots.

Shipmospish. Arct. zool. ii. p. 236.

257

γ. Russian Little Owl.—44. β. *S. passerina rossica*.

Is considerably larger; the wings are variegated with brown and yellow. Lath. ind. orn. i. 66. n. 46. β.

Noctua minor. S. G. Gmelin, in Nov. com. petr. xv. 447. t. 12.

Inhabits the Russian Empire.—This variety is twelve inches long; the belly is mixed with yellow; the chin is white.

IV. S H R I K E.—4. *L A N I U S*. 44.

The bill is mostly straight, being only a little hooked at the end; each mandible, near the end, is armed with a sharp tooth-

tooth-like process; the base is naked: The tongue is jagged, as if torn at the extremity.

This genus forms a link of the chain of being, connecting the order of Rapacious birds with those which are called Pies; it agrees with the former in the strength, and, in some degree, the form of the bill, and in living by prey; while it resembles the latter in its general manners and appearance, in the form of its tongue and tail, and in the structure of its feet; it comes nearest in general form to the Magpie, and is named *Pie-grièche* by the French ornithologists. The nostrils are generally round, and covered with stiff bristles; the toes are divided to their origin, except the middle one, which is slightly connected to the outer toe; the tail is, for the most part, though not always, wedge-like, or longer in the middle than at the sides, the middle rising higher than the rest, and the sides doubled down. In general, the birds of this genus are noisy and quarrelsome, from which circumstance they are called Wranglers, *Wariangles**, in old English writers; they prey on small birds and insects, and tear their prey to pieces, sticking the fragments on thorns, whence they get the name of Butcher birds; but in system the single appellation of Shrike is preferable, derived from their noisy manners. They are found in all quarters of the world, and in all climates, except within the Arctic circle.

258

1. Drongo Shrike.—1. *Lanius forficatus*. 1.

The tail is forked; the forehead is ornamented with an erected crest; the plumage is greenish black.

L. forficatus. Lath. ind. orn. i. 66. n. 1.—*Muscicapa madagascariensis cristata*, Briss. av. ii. 388. n. 16. t. 37. f. 4.—Drongo. Buff. ois. iv. 586.—Gobe-mouche huppé, de madagascar. Pl. enl. n. 189.—Crested fork-tailed Shrike. Lath. syn. i. 158. n. 1.

Inhabits the Cape of Good Hope, Madagascar, and China.—This species is ten inches long; the crest is erected from the forehead, just behind the base of the bill, but is sometimes wanting, perhaps in female specimens; the tail is long.

259

2. Malabar Shrike.—*Lanius malabaricus*.

Of a bluish black colour, the tail and the wing quills being black; the outer tail quill of each side is very long and has no webs, except on the outer side near the extremity. Lath. ind. orn. i. 66. n. 2.

Drongo de malabar. Buff. ois. iv. 587.—Gobe-mouche de malabar. Sonner. it. ii. t. 111.—Malabar Shrike. Lath. syn. sup. 56. t. 108.

Inhabits Malabar.—This species is seventeen inches and a half long; the feathers of the head and neck are very narrow; in some specimens the head is ornamented with a very large, woolly, pendent crest, which covers the whole top of the head.

3.

* Chaucer's Freres tale, as quoted by Mr Pennant, who explains the term as above, though perhaps the German name *Wurch-angel*, Worrying, or Suffocating, angel, *i. e.* Devil, may be a better etymology of Chaucer's expression.—T.

260

3. Fingah Shrike.—2. *Lanius caerulefcens*. 2.

The tail is forked ; the body is bluish black above, and the belly is white.

L. caerulefcens. Lath. ind. orn. i. 67. n. 3.—*L. bengalensis*. Briff. av. ii. 189. Klein, av. 54. n. 8. Ger. orn. i. 74. t. 57. f. 1.—Fingah. Buff. oif. i. 108.—Fork-tailed indian Butcher-bird. Edw. av. t. 56.—Fork-tailed Shrike. Lath. fyn. i. 158. n. 2.

Inhabits Bengal.—This species is seven inches and a half long, and, notwithstanding its smallness, is extremely troublesome to crows : The breast is of a dusky ash colour.

261

4. Chestnut Shrike.—3. *Lanius castaneus*. 5.

The tail is wedge-like ; the upper part of the body is chestnut, its under parts being white.

L. castaneus. Lath. ind. orn. i. 67. n. 4.—Chestnut-backed Shrike. Lath. fyn. i. 159. n. 3.

Its place uncertain.—This species is eleven inches long ; the bill, wings, and legs are black ; the fore-head is blackish brown ; the crown, hind head, nape, and scrag are ash coloured ; the middle tail quills are black, with ash coloured tips, and the outmost tail quills are entirely ash coloured.

262

5. Crested Shrike.—4. *Lanius cristatus*. 3.

The tail is wedge-like ; the head is crested ; the body is reddish, its under parts being waved with brown and tawny.

L. cristatus. Lath. ind. orn. i. 72. n. 17.—*L. bengalensis rufus*. Briff. av. ii. 173.—Crested red Butcher-bird. Edw. av. t. 54.—Crested red Shrike.—Lath. fyn. i. 170. n. 18.

Inhabits Bengal.—This species measures six inches and a half long ; it is sometimes found without a crest, perhaps the crested specimens may be the males, and those without crests the females : The bill is pale horn colour ; near the eye, on each side, the cheek is marked with a small femilunar black spot ; the tail is reddish above, and grey beneath ; the legs, feet, and claws are black.

263

6. Canadian Shrike.—5. *Lanius canadensis*. 4.

The tail is wedge-like ; the head is crested ; the body is reddish above, and whitish ash coloured beneath.

L. canadensis. Lath. ind. orn. i. 72. n. 18. Briff. av. ii. 171. t. 18. f. 3. Ger. orn. i. 75. t. 62. f. 2.—Pie-grieffche huppé de Canada. Buff. oif. i. 316. Pl. enl. n. 479. f. 2.—Crested Shrike. Lath. fyn. i. 182. n. 35. Arct. zool. ii. 239. n. 129.

Inhabits Canada.—The bill and claws are black ; the crest is reddish ; the cheeks are dusky, with white spots ; the throat and breast are yellowish red ; the belly is whitish, or ash coloured ; the wing coverts are black, edged with white ; the primary wing quills are edged with white on their outer webs ; the tail is black, edged on each side, and tipped with white.

264

7. Louisiana Shrike.—6. *Lanius ludovicianus*. 6.

Of an ash colour, with a wedge-like tail; the wing quills are black; the outer tail quills are white at the tips and roots.

L. ludovicianus. Lath. ind. orn. i. 69. n. 8. Briff. av. ii. 162. t. 15. f. 2.—Pie-grieffche de la Louisiane. Pl. enl. n. 397.—Louisiane Shrike. Lath. syn. i. 162. n. 5.

Inhabits Louisiana.—This species is a good deal allied to the Cinereous and the Butcher species: Under each eye is a black bar; the six middle tail feathers are entirely black; the rest are white at both ends, and black in the middle; the secondary wing quills are white at the tips.

265

8. Grey Shrike.—7. *Lanius Nengeta*. 7.

The tail is wedge-like, and white at the tip; the body is ash coloured, its under parts being whitish.

L. Nengeta. Lath. ind. orn. i. 68. n. 7.—Cotinga cinerea. Briff. av. ii. 353.—Guiraru. Buff. ois. iv. 459.—Guiraru Nhengeta. Marcgr. braf. 209. Raj. av. 166. n. 5.—Guiraru, or American Chat. Will. orn. 235.—Grey Pye of Brasil. Edw. av. t. 318.—Grey Shrike. Lath. syn. i. 183. n. 36. Arct. zool. ii. 240. A.

Inhabits Brasil, Surinam, Guiana, Russia, and Siberia.—This species is nine inches long; it frequents marshy places, and is gregarious; the irides are light sea-green; the wings, tail, and feet are blackish; on each side of the head a black line rises from the base of the bill, and stretches through the orbits to the hind head; the wing coverts are black, tipped with dirty white; the primary wing quills are black; the ends of the outer tail quills are white.

266

9. Hook-billed Shrike.—8. *Lanius curvirostris*. 8.

The tail is wedge-like; the body is white; the back is black; the five outer primary wing quills have each a white spot.

L. curvirostris. Lath. ind. orn. i. 72. n. 15.—*Collurio madagascariensis*. Briff. av. ii. 191. t. 19. f. 1.—Vanga, ou Becarde à ventre blanc. Buff. ois. i. 312.—Ecorcheur de Madagascar. Pl. enl. n. 228.

Inhabits Madagascar.—This species is ten inches long; it lives much on fruits: The points of both mandibles of the bill are bent backwards; the hind head is greenish black; the greater wing coverts are obliquely spotted with white; the inner webs of the tail quills are ash coloured, their outer webs are black, and the tips are white; the legs and feet are leaden coloured, and the claws are blackish.

267

10. Collared Shrike.—9. *Lanius collaris*. 9.

The tail is wedge-like; the body is black above and white beneath; the primary wing quills are white at the base.

L. collaris. Lath. ind. orn. i. 69. n. 10.—*L. capitis bonae spei*. Briff. av. ii. 182. t. 15. f. 1.—Pie-grieffche du cap. Pl. enl. 477. f. 1.—Collared Shrike. Lath. syn. i. 163. n. 7.

Inhabits the Cape of Good Hope.—Is about the size of the Butcher Shrike, measuring twelve inches long : The head and bill are blackish ; the four middle tail quills are entirely black, the rest being white at the tips.

268

11. Luzonian Shrike.—10. *Lanius lucionensis*. 10.

The tail is wedge-like ; the body is reddish grey, the tail being barred with brown at the end ; the sides of the head have each a black spot behind the eyes.

L. lucionensis. Lath. ind. orn. i. 67. n. 5. Briff. av. ii. 169. t. 18. f. 1.—Luzonian Shrike. Lath. syn. i. 172. n. 21.

Inhabits the island of Luzonia.—Is seven inches and a half long ; the bill and upper parts of the body are brownish grey ; the under parts and sides of the body are reddish white.

269

12. Great Shrike.—11. *Lanius Excubitor*. 11.

The tail is wedge-like, with white sides ; the back is hoary ; the wings are black, with a white band. Scop. an. i. 23. n. 18.

L. Excubitor. Lath. ind. orn. i. 67. n. 6.—*L. cinereus*. Briff. av. ii. 141.—*L. cinereus major*. Gefn. av. 579. Aldr. orn. i. 384. f. p. 386. Raj. av. 18.—*Falco congener*. Klein, stem. 9. t. 9. f. 1. a. b. c.—*Ampelis caerulefcens*. Faun. suec. n. 181.—*Cafrica palombina*. Olin. uccell. t. 41.—*Ferlotta berettina*. Zinnan. uov. 90. t. 19. f. 80.—*Falconetti*. Cett. uc. fard. 54.—*Warfoger*. Faun. suec. n. 80.—*Neuntoeder*. Frisch, av. t. 60.—*Pie-griefche grife*. Buff. ois. i. 296. t. 20. Pl. enl. n. 445.—*White Whisky-john*. Phil. trans. lxii. 386.—*Mattagefs, or Greater Butcher-bird*. Will. orn. 87. t. 10. Albin. av. ii. t. 13. Ellis, voy. ii. 28.—*Great Shrike*. BRIT. ZOOL. n. 71. t. 33. Arct. zool. ii. 238. n. 127. Catesb. carol. app. 36. Lewin, brit. b. i. t. 30.—*Great cinereous Shrike*. Lath. syn. i. 160. n. 4.

Inhabits Europe and North America.—This species lives in the woods, and is among the first to breed in spring ; it preys on small birds, which it strangles, or kills by crushing their heads with its bill, after which it sticks their bodies on a thorn and tears them to pieces ; from this practice the genus has been called *Butcher-birds* ; it is said to watch the coming of Hawks, and to give them notice of birds concealed, that it may share in preying on such as it cannot master ; it builds a nest of dry grass, lined thickly with feathers, in which it lays seven bluish eggs, which are spotted with brown. The bill and legs are black ; the crown and scrag of the neck are hoary ; the cheeks are white, with a black transverse line from the base of the bill ; the lower parts of the body are white ; the thighs are pale brown ; the lesser wing coverts are black ; the tail quills are black, and all, except the two middle ones, are tipped with white ; this whiteness increases to the outermost, which is almost entirely white. The female has a brown bar behind each eye.

270

β. White Great Shrike.—11. β. *L. Excubitor albus*.

The whole body is white ; the legs are yellowish ; the bill and claws are black. Lath. ind. orn. i. 68. n. 6. γ. Syn. i. 162.

L. albus. Briff. av. ii. 145. A.

271

γ. Larger Great Shrike.—11. γ. *L. Excubitor major*.

The lesser wing coverts and the shoulders are reddish. Lath. ind. orn. i. 68. n. 6. β.

L. cinereus major. Briff. av. ii. 146. n. 2.—Groesbeek Neuntoeder. Frisch, av. t. 59.—Gefnors great Butcher-bird. Will. orn. 88.

These two varieties are found in Europe along with the first.

272

13. Butcher Shrike.—12. *Lanius Collurio*. 12.

The tail is somewhat wedge-shaped; the back is grey; the four middle tail quills are of a uniform grey colour; the bill is leaden coloured. Faun. suec. n. 81.

L. Collurio. Scop. an. i. 24. n. 19. Nozem. nederl. vog. t. 65. Gunth. nest. t. 23. Lath. ind. orn. i. 69. n. 11.—*Lanius minor rufus*. Raj. av. 18. A. 4.—*Merulae congener*. Raj. av. 67. n. 13. Will. orn. 195. n. 3.—*Collurio*. Briff. av. ii. 152.—*Ecorcheur*. Buff. ois. i. 304. t. 21. Pl. enl. n. 31. f. 2.—*Fleisher*, or Lesser Butcher-bird. Will. orn. angl. 88. Alb. av. ii. t. 14.—Red-backed Shrike. BRIT. ZOOL. n. 72. Lewin, brit. b. i. t. 30. Arct. zool. ii. 240. n. 131. Lath. syn. i. 167. n. 25. sup. 52.—*Ferlotta rossa*. Zinn. uov. 91. t. 15. f. 81.

Inhabits Europe.—This species is about seven inches and a half long; it is migratory in England, where it arrives in May, and departs in September or October: It preys on small birds, killing them by piercing the skull with its bill; it feeds likewise on beetles, grasshoppers, and various other insects, which it frequently transfixes on a thorn of the Sloe, and tears in pieces; and imitates the cries of other birds on purpose to entrap them. On each cheek a black line, rising from the base of the bill, passes through the region of the eyes: In the *female*, the head is reddish grey, and the cross line on each cheek is reddish brown; the lower parts of the body are whitish, with transverse blackish semilunar spots; the tail quills are brown, the outer ones being white on their exterior webs. The female lays six white eggs, which have a circle of reddish brown towards the broad end; she builds in hedges and bushes.

Mr Pennant describes this species somewhat differently in his Arctic Zoology: The crown and rump are grey; the back and wing coverts rusty; the breast and belly rose coloured; the tail is black, the exterior quills being edged with white: The *female* is of a dirty rust colour; her breast and belly dirty white, with dusky semicircular lines; both have the black line on the cheeks. Perhaps this description refers to a different variety, which might be named Arctic Butcher Shrike.

273

β. Variegated Butcher Shrike.—12. β. *L. Collurio varius*.

Of a grey colour, the under parts reddish, with brown streaks; the scapulars are half white, half black; the three outermost tail quills are reddish white at the base and tips, the outermost being reddish white on its outer web. Lath. ind. orn. i. 70. n. 11. β.

L. arundinum. Klein, av. 54. n. 10.—*Collurio varius*. Briff. orn. 201. n. 5.—Variegated Shrike. Lath. syn. i. 168. n. 16.—Lesser variegated Butcher-bird. Will. orn. 189.

Mr Latham suspects that this variety may possibly be the female of the former; it wants the cross line on the cheeks.

274

γ. Red Butcher Shrike.—12. γ. *L. Collurio rufus*.

The body is variegated above with reddish, white, and black; its under parts are reddish white.

L. rufus. Briff. orn. 199. n. 3.—*L. rutilus*. Lath. syn. i. 70. n. 12.—*L. minor cinarefcens*. Raj. av. 19. A. 6.—*Ampelis dorso griseo*. Faun. suec. i. 180. t. 2.—*Ampelis tertia*. Kram. el. 363.—*Buferola*, Ferlotta bianca. Zinnan, uov. 89. t. 15. f. 79.—*Pie-griefche rouffe*. Buff. ois. i. 103. Pl. enl. n. 9. f. 2. and n. 31. f. 1.—Other Butcher-bird. Will. orn. ang. 89. § 4.—Wood-Chat. BRIT. ZOOL. n. 73. Lewin, brit. b. i. t. 32. Alb. av. ii. t. 16. Lath. syn. i. 169. n. 17.

Inhabits with the former.—Is of the same size with the Common Butcher Shrike, and has the same manners: The *female* is reddish, transversely streaked with brown, and marked on the under parts with brown semilunar spots; the tail quills are barred with brown; the eggs are pale rusty, clouded with ash colour.

275

δ. Senegal Butcher Shrike.—12. δ. *L. Collurio senegalensis*.

The scapulars are of the same reddish colour with the body; the bases of the wing quills are spotted with white.

L. rutilus senegalensis. Lath. ind. orn. i. 71. n. 12. β.—*Pie-griefche rouffe du Senegal*. Pl. enl. n. 477. f. 2.—Senegal Wood-Chat. Lath. syn. i. 170. n. 17. A.

Inhabits Senegal.

276

ε. Black-crowned Butcher Shrike.—12. ε. *L. Collurio melanocephalus*.

The head is black; the tail is a good deal longer than in the former varieties.

L. rutilus melanocephalus. Lath. ind. orn. i. 71. n. 12. γ.—*Pie-griefche à tete noir du Senegal*. Pl. enl. n. 474.—Black-headed Senegal Wood-Chat. Lath. syn. i. 170. n. 17. B.

Inhabits Senegal.

277

14. Antiguan Shrike.—13. *Lanius antiguanus*. 29.

The tail is long and wedge-like; the body is yellowish red above, and white below; the head, bill, wings, legs and feet, and upper surface of the tail, are black.

L. antiguanus. Lath. ind. orn. i. 72. n. 16.—*Pie-griefche d'Antigue*. Sonner. voy. 114. t. 70.—Antiguan Shrike. Lath. syn. i. 171. n. 20.

Inhabits Luzonia and Panay, in the Philippine isles.—Is of the same size with the Butcher Shrike: The upper mandible of the bill is remarkably longer than the lower, and is very much hooked; the wings are short; the two middle tail quills are entirely black, but the rest are reddish on their lower surfaces, and red at the points.

278

15. Black Shrike.—14. *Lanius niger*. 30.

Of a black colour; the secondary wing quills being edged on their outer webs with brown; the tail is somewhat wedge-like.

L. niger. Lath. ind. orn. i. 73. n. 21.—Black Shrike. Lath. syn. i. 187. n. 38.

Inhabits

Inhabits Jamaica.—Is seven inches long; the bill is an inch in length, and resembles that of the Tyrant Shrike.

279

16. Levers Shrike.—15. *Lanius Leverianus*. 31.

The tail is long, wedge-like, and white at the tip; the bill, head, neck, the middle of the breast, the wings, legs, and feet, are black; all the other parts are white.

L. picatus. Lath. ind. orn. i. 73. n. 20.—Magpie Shrike. Lath. syn. i. 192. n. 49. sup. 54.

Inhabits South America.—This species is about the size of a Blackbird, and has a strong resemblance to the Magpie, in colours and general appearance; it is ten inches long; the feathers of the greater wing coverts, and the secondary wing quills are edged with white; the two middle tail quills are four inches and a half long, while the rest are only two inches; all of them are black, with white tips.

280

17. Surinam Shrike.—16. *Lanius atricapillus*. 32.

The tail is black and wedge-like; the crown, scrag, shoulders, and the wings, are black; the rest of the upper parts are mouse coloured; the under parts are bluish ash.

L. atricapillus. Merrem, beytr. ii. 30. t. 10. Lath. ind. orn. i. 73. n. 19.

Inhabits Surinam.—Is about the size of a Linnet, scarcely exceeding five inches in length; the wings are short; the feathers of the wing coverts, and the secondary wing quills are edged with black; the tail quills are tipped with white, except the two middle ones. Except in size it seems much allied to the former species.

281

18. Pomeranian Shrike.—17. *Lanius pomeranus*. 33.

The upper parts of the body are black, the lower parts white; the hind head and the scrag are dark rusty, surrounded with black; the rump is white; each wing is marked with two black spots. Musc. carlf. n. i. t. 1.

Inhabits Pomerania.—The bill, legs, and feet, and the wings are black; the two outer tail quills are white; the next two or three, on each side, are whitish from the base to their middles, and tipped with white. Mr Latham quotes this as a synonyme to the Red Butcher Shrike, No. 274. but the difference is very conspicuous.

282

19. Tyrant Shrike.—18. *Lanius Tyrannus*. 13.

Is ash coloured above, and white beneath; the crown is black, with longitudinal tawny streaks.

L. Tyrannus. Lath. ind. orn. i. 81. n. 53.—Muscicapa Tyrannus. Briss. av. ii. 391.—Tyrann. Pl. enl. n. 537.—Tiriri, Pipiri. Buff. ois. iv. 572.—Picus cristata americana, Kleiner americanischer Neuntoeder. Frisch, av. t. 62.—Tyrant Shrike. Lath. syn. i. 184. n. 37.—Tyrant Fly-catcher. Arct. zool. ii. 384. n. 263.

Inhabits America.—Is eight inches long; it is migratory, appearing in Carolina and Virginia, about April, where it breeds, and retires before winter; it builds in the hollows of trees, and, while the female

male sits on the eggs and rears her young, the male is astonishingly bold and impetuous in attacking and driving away other birds, even fixing on the backs of Eagles, Hawks, and Crows, persecuting them, and uttering a continual chattering note with great vehemence, till they are forced to retire; Mr Pennant adds that the bill is soft, and that it only feeds on insects, and accordingly ranks it among Fly-catchers, *Muscicapæ*. The bill, legs, feet, and claws are blackish brown; the irides are brown; the longitudinal streak on the head is composed of tawny feathers, with blackish tips; Mr Pennant describes this streak as being scarlet; in some instances, said by Mr Latham to be the females, it is yellow; the tail is brown, edged with reddish.

283 β . Domingo Tyrant Shrike.—18. β . *L. Tyrannus dominicensis*.

Of a brown grey colour above, and white below, with the breast ash coloured. Lath. ind. orn. i. 81. n. 53. β .

Tyrannus dominicensis. Buff. av. ii. 394. n. 19. t. 18. f. 2.—St. Domingo Tyrant. Lath. fyn. i. 185. n. 37. A.

Inhabits St Domingo.—The tail quills are reddish on their outer webs, and at the tips.

284 γ . Carolina Tyrant Shrike.—18. γ . *L. Tyrannus carolinensis*.

Of an ash colour above, and white beneath; the head and tail are black, the last being tipped with white. Lath. ind. orn. i. 82. n. 53. γ .

Tyrant de la Caroline. Buff. oif. iv. 577.—Gobe-mouche de la Caroline. Pl. enl. n. 676.—Carolina Tyrant. Catf. carol. i. t. 55. Lath. fyn. i. 186. n. 37. B.

Inhabits Carolina.

285 δ . Louisiana Tyrant Shrike.—18. δ . *L. Tyrannus ludovicianus*.

Of a leaden colour above, and white below. Lath. ind. orn. i. 82. n. 53. δ .

Tyrant de la Louisiane. Buff. oif. iv. 579.—Gobe-mouche de la Louisiane. Pl. enl. n. 676.—Louisiana Tyrant. Lath. fyn. i. 186. n. 37. C. Arct. zool. ii. 385. n. 264.

Inhabits Louisiana.—The bill is long, flat, hooked at the end, and black; the head and back are brownish ash; the throat is flary blue; the belly is yellowish; the primary wing quills are bright bay; these, with the larger wing coverts, are edged with white; the tail is long, of a brown ash colour, and white at the sides and tip.

286 20. Chinese Shrike.—19. *Lanius Schach*. 14.

Is yellow; with a black forehead and black wings. Lath. ind. orn. i. 75. n. 25. Oif. voy. 227.

Chinese Shrike. Lath. fyn. i. 173. n. 22.

Inhabits China.—Is of the same size with the Tyrant Shrike; the head and back of the neck are grey; the under part of the neck is dull reddish white; the back and belly are pale dusky red; the wing quills are black, the primaries being white at the base, and the secondaries whitish at the tips.

287

21. Brazilian Shrike.—20. *Lanius Pitangua*. 15.

Is black above, and yellow beneath; the crown is marked with a tawny streak, and a white bar runs across the orbits.

L. Pitangua. Lath. ind. orn. i. 78. n. 42.—*Tyrannus brasiliensis*. Briss. av. ii. 401. t. 36. f. 5.—*Pitangua guacu*. Marcgr. braf. 216. Raj. av. 165.—*Pitangua guacu*, or *Bemtere*. Will. orn. angl. 198. Id. lat. 146. t. 38.—*Bentaveo*, *Cuiriri*. Buff. oif. iv. 579. t. 27.—*Tyran de Bréfil*. Pl. enl. n. 212.—*Brazilian Tyrant*. Lath. syn. i. 187. n. 39.

Inhabits Brazil.—Is nine inches long; the bill is strong; the cheeks are each marked with a brown spot below the eyes; the chin is white; the feathers on the upper parts of the body are edged with yellow; the under surfaces of the wings are yellow; the tail is brown, edged with reddish, its under surface being olive yellow.

288

22. Rufous Shrike.—21. *Lanius rufus*. 17.

Of a red, or rufous, colour above, and white beneath; the head is greenish black.

L. rufus. Lath. ind. orn. i. 77. n. 35.—*L. madagascariensis rufus*. Briss. av. ii. 178. t. 18. f. 4. Ger. orn. i. 75. t. 59. f. 1.—*Schet-bé*. Buff. oif. i. 313.—*Pie-griefche rouffe de Madagascar*. Pl. enl. n. 298. f. 2.—*Rufous Shrike*. Lath. syn. i. 180. n. 31.

Inhabits Madagascar.—Is nearly eight inches long; the bill, legs, feet, and claws are leaden grey, or pale horn colour; the head and neck are black with a greenish gloss; on the *female* this is less splendid, and the fore part of the neck is grey.

289

23. Barbary Shrike.—22. *Lanius barbarus*. 18.

Is black above, and red beneath; the crown and thighs are tawny.

L. barbarus. Lath. ind. orn. i. 79. n. 45.—*L. senegalensis ruber*. Briss. av. ii. 185. t. 17. f. 2.—*Gonolak*. Buff. oif. i. 314.—*Pie-griefche de Senegal*. Pl. enl. n. 56.—*Barbary Shrike*. Lath. syn. i. 173. n. 23.

Inhabits Senegal.—Is near nine inches long; the bill, tail, legs, feet, and claws are black; the head, scrag, ventlet or under side of the rump, and the lower wing coverts are yellow.

290

24. Yellow bellied Shrike.—23. *Lanius fulphuratus*. 19.

Is brown above, and yellow beneath; the head is blackish, furrounded with a whitish fillet.

L. fulphuratus. Lath. ind. orn. i. 79. n. 43.—*L. cayanensis luteus*. Briss. av. ii. 176. t. 16. f. 4.—*Becarde à ventre jaune*. Buff. oif. i. 312.—*Pie-griefche jaune de Cayenne*. Pl. enl. n. 296.—*Yellow-bellied Shrike*. Lath. syn. i. 188. n. 40.

Inhabits Cayenne.—Is the size of the last; the chin and throat are white; the legs and feet are grey; the bill and claws are blackish; the wings and tail are brown, edged with red.

291

25. Cayenne Shrike.—24. *Lanius cayanus*. 20.

Of an ash colour; the head, tail, and primary wing quills are black.

L. cayanus. Lath. ind. orn. i. 80. n. 47.—*L. cayanensis cinereus*. Briff. av. ii. 158. t. 14. f. 1.—Becarde. Buff. ois. i. 311.—Pie-griefche grise de Cayenne. Pl. enl. n. 304.—Cayenne Shrike. Lath. syn. i. 189. n. 41.

Inhabits Cayenne.—Is eight inches and a half long; the bill is red at the base, and black at the tip; the legs and feet are ash coloured, with black claws.

292 β. Spotted Cayenne Shrike.—24. β. *L. cayanus naevius*.

Is ash coloured; the middle of each feather being marked with a longitudinal black streak. Lath. ind. orn. i. 80. n. 47. β.

L. cayanensis naevius. Briff. av. ii. 167. t. 17. f. 1.—Pie-griefche tachetée de Cayenne. Pl. enl. n. 377.—Spotted Cayenne Shrike. Lath. syn. i. 189. n. 41. A.

Inhabits with the former, and is of the same size.

293 γ. Lesser Cayenne Shrike.—*L. cayanus minor*.

Of a smaller size, and having a yellowish forehead. Lath. ind. orn. i. 80. n. 47. γ. Syn. sup. 54.

Inhabits with the two former.—The belly of this variety is grey, and has no spots; the sides of the head, near the ears, have each a reddish spot.

294 26. Orange Shrike.—*Lanius aurantius*.

Is tawny yellow; the chin, throat, and breast, being reddish. Lath. ind. orn. i. 79. n. 44. Syn. sup. 57.

Inhabits Cayenne.—Is seven inches long; the head above the eyes, and the nape of the neck, are black; the wings and tail are brown; the bill is black, and the claws are pale.

295 27. Senegal Shrike.—25. *Lanius senegalus*. 21.

Of a grey colour above, and whitish beneath; the crown, a band through the orbits, and the tail, are black.

L. senegalus. Lath. ind. orn. i. 74. n. 24.—*L. senegalensis cinereus*. Briff. av. ii. 167. t. 17. f. 1. Ger. orn. i. 75. t. 61. f. 1.—Pie-griefche grise de Senegal. Pl. enl. n. 297. f. 1.—Senegal Shrike. Lath. syn. i. 162. n. 6.

Inhabits Senegal.—Is nine inches long; the outer webs of the wing quills are reddish; six of the tail quills on each side are slightly marked with brownish bars, and their tips are of the same general colour with their bodies; the rest are tipped with white.

296 28. Madagascar Shrike.—26. *Lanius madagascariensis*. 22.

Of an ash colour above, and whitish beneath, with black straps on the cheeks; the tail quills are reddish.

L. madagascariensis. Lath. ind. orn. i. 79. n. 46.—*L. madagascariensis minor*. Briff. av. ii. 264. t. 16. f. 1. 2.—*Cali-calic*, Bruja. Buff. ois. i. 315.—*Petite Pie-griefche de Madagascar*. Pl. enl. n. 299. f. 1. 2.—*Madagascar Shrike*. Lath. syn. i. 174. n. 24.

Inhabits Madagascar.—This species is about the size of a sparrow, being scarcely five inches long; on each side of the head the space between the eyes and nostrils, called the *fraps* or *bra*, are black; the upper wing coverts are red; the greater part of the tail quills are red: In the *male* the chin and throat are black, in the *female* this circumstance is wanting.

297

29. Bengal Shrike.—27. *Lanius Emerica*. 23.

Is grey above and white beneath; the temples and rump are red.

L. Emerica. Lath. ind. orn. i. 74. n. 23.—*L. bengalensis fuscus*. Briff. av. ii. 175. n. 14.—*Muscicapa Emerica*. Syft. nat. ed. x. 236. n. 7.—*Rouge-queue*. Buff. ois. i. 309.—*Bengal Red-start*. Albin. av. iii. 24. t. 56.—*Indian Red-start*. Edw. av. iv. t. 190.—*Bengal Shrike*. Lath. syn. i. 175. n. 25.

Inhabits Bengal.—Is five inches and a half long; the bill is brownish ash; the irides are whitish; the belly, rump, and upper tail coverts, are red; each side of the neck is marked with four curved spots of black; the tail is light brown; the legs, feet, and claws, are black. Mr Latham adds, that the head is somewhat crested.

298

30. Blue Shrike.—28. *Lanius bicolor*. 27.

Of a blue colour above, and white below; having a black frontlet. Mantiff. 1771, p. 124.

L. bicolor. Lath. ind. orn. i. 75. n. 26.—*L. madagascariensis caeruleus*. Briff. av. ii. 197. t. 16. f. 3. Gerin, orn. i. 75. t. 60. f. 1.—*Loxia madagascarina*. Syft. nat. ed. xii. 306. n. 42.—*Pie-griefche bleue de Madagascar*. Pl. enl. n. 32. f. 2. n. 298. f. 1.—*Blue Shrike*. Lath. syn. i. 178. n. 29.

Inhabits Madagascar.—This species, which lives on insects, is six inches and a half long: The head, bill, edges of the wing quills, the two middle tail quills, and the edges of the four next tail quills on each side are blue; the frontlet, or feathers which surround the base of the upper mandible, the wing quills, except at their roots, the outermost tail quills on each side, the legs, feet, and claws, are black: The *female* differs from the *male* in having much less splendid colours; her under parts are dirty white or light ash colour, and her wings are longer than those of the *male*. Mr Latham adds, that the tail of this species is very slightly wedge-shaped, being almost equal at the end.

299

31. Manilla Shrike.—29. *Lanius leucorhynchus*. 28.

The body is blackish above, and whitish beneath; the bill and rump are white.

L. leucorhynchus. Lath. ind. orn. i. 77. n. 38. Mantiff. 1771, p. 524.—*L. manillensis*. Briff. av. ii. 180. n. 17. t. 18. f. 2. Gerin, orn. i. 75. t. 62.—*Longraien*. Buff. ois. i. 310.—*Pie-griefche de Manille*. Pl. enl. n. 9. f. 1.—*White-billed Shrike*. Lath. syn. i. 181. n. 33.

Inhabits Manilla.—Is seven inches long; the wings, tail, legs, feet, and claws, are black; the tail is equal.

300

32. Rusty Shrike.—30. *Lanius ferrugineus*. 34.

The body is brownish black above; the throat and breast are dirty white; the belly is rusty.

L. ferrugineus. Lath. ind. orn. i. 76. n. 33.—Ferruginous-bellied Shrike. Lath. syn. i. 163. n. 8. sup. 51.

Inhabits at the Cape of Good Hope.—Is nine inches long; the bill is leaden coloured; the rump and tail are dusky brown; the legs and feet are black.

301

33. Tabuan Shrike.—31. *Lanius tabuenfis*. 35.

The body is olive brown above; the throat and breast are ash coloured; the belly is yellowish brown; the wing quills are black; the tail, legs, and feet, are brown.

L. tabuenfis. Lath. ind. orn. i. 76. n. 34.—Tabuan Shrike. Lath. syn. i. 164. n. 9.

Inhabits Tongataboo, one of the Friendly isles in the South Sea.—Is near nine inches long; the bill is brown; the crown is greenish brown; the sides of the head are olive brown; the external margins of the wings are black; the secondary wing quills are blackish brown, edged with dirty white.

302

34. Pacific Shrike.—32. *Lanius pacificus*. 36.

Is black; the head and neck having a green tinge, the belly, wings, and tail, being more dusky.

L. pacificus. Lath. ind. orn. i. 75. n. 28.—Pacific Shrike. Lath. syn. i. 164. n. 10.

Inhabits the South Sea islands.—Is eleven inches long; the bill, which measures three quarters of an inch, is dusky; the feathers of the head and neck are very narrow; the tail is three inches long; the toes are completely divided to their origins, and the middle toe is remarkably long.

303

35. Northern Shrike.—33. *Lanius septentrionalis*. 37.

Is brown above, the chin, throat, and belly, being ash coloured; the belly and ventlet are brownish; the bill is black; the legs and feet are lead coloured.

L. septentrionalis. Lath. ind. orn. i. 76. n. 30.—Northern Shrike. Lath. syn. i. 165. n. 11.

Inhabits North America.—Is about eight inches long; the nostrils are small and rounded; the base of the upper mandible is garnished with five or six black bristles on each side; the four middle tail quills are universally brown; the rest are tipped with white on their inner webs; all of them are two inches long; the legs are short, with strong brown claws.

304

36. Black-capped Shrike.—*Lanius pileatus*.

The head is crested; the general colour is ash, the head, throat, and breast, being black; the wing coverts are barred with white, and the tail is tipped with white.

Lath. ind. orn. i. 76. n. 31. Syn. sup. 54.

Inhabits

Inhabits Cayenne.—Is six inches long: The *female* has no crest, but her crown is blackish, and her throat and breast are ash coloured.

305

37. Green Shrike.—34. *Lanius viridis*. 38.

The head, wings, and upper part of the body, are dusky green; the under parts of the body are white; the tail is black.

L. viridis. Lath. ind. orn. i. 75. n. 27.—*L. madagascariensis minor viridis*. Briss. av. ii. 195. n. 25. t. 15. f. 2.—Tcha-chert. Buff. ois. i. 310.—Pie-griefche de Madagascar. Pl. enl. n. 32. f. 2.—Green Shrike. Lath. syn. i. 179. n. 30.

Inhabits Madagascar.—Is near six inches long; the wings are long; the two middle tail quills are dusky green; the rest are black, or blackish, with dusky green exterior webs; the legs, feet, and claws, are black.

306

38. White-headed Shrike.—35. *Lanius leucocephalus*. 39.

Is greenish black above; the head, neck, and under parts of the body, being white.

L. leucocephalus. Lath. ind. orn. i. 77. n. 36.—*L. madagascariensis major viridis*. Briss. av. ii. 193. n. 24. t. 19. f. 3.—Tcha-chert-bé. Buff. ois. i. 314.—Pie-griefche verdatre de Madagascar. Pl. enl. n. 374.—White-headed Shrike. Lath. syn. i. 180. n. 32.

Inhabits Madagascar.—This species, which has some affinity to the Rufous Shrike, is eight inches long; the tail is dark greenish black above, and black beneath; the bill, legs, feet, and claws, are leaden coloured.

307

39. Dominican Shrike.—36. *Lanius dominicanus*. 40.

Is black, with a white belly and rump.

L. leucorhynchus dominicanus. Lath. ind. orn. i. 78. n. 38. β .—Pie-griefche dominicaine. Sonner. voy. 55. t. 26.—Dominican Shrike. Lath. syn. i. 181.

Inhabits the Phillippine islands.—This species is a little larger than a Sparrow; it flies with vast swiftness, is extremely bold, and is particularly troublesome to Crows: Dr Gmelin suspects it may be a variety of the Manilla Shrike, formerly described, and it is accordingly arranged as such by Mr Latham. The bill is conical, strong, and ash coloured, being garnished at the base with bristles; the wings extend beyond the tip of the tail when closed.

308

40. Panay Shrike.—37. *Lanius panayensis*. 41.

Is brown; the head, throat, breast, and belly, being red.

L. panayensis. Lath. ind. orn. i. 78. n. 40.—Pie-griefche rouge de Panay. Sonner. voy. 114. t. 70.—Panayan Shrike. Lath. syn. i. 182. n. 34.

Inhabits the island of Panay.—Is about the same size with the Butcher Shrike; the bill, legs, and feet, are black; the crown, back, wings, and tail, are brown; the irides are flame coloured.

309

41. White Shrike.—38. *Lanius albus*. 42.

Is white; the bill, tail, and principal parts of the wings, being black.

L. albus. Lath. ind. orn. i. 77. n. 37.—Pie-griefche blanche de Panay. Sonner. voy. 115. t. 72.—White Shrike. Lath. fyn. i. 189. n. 42.

Inhabits the island of Panay.—Is twice as large as the Red variety of the Butcher Shrike; the wings are each marked with a white band across the primary quills.

310

42. Variegated Shrike.—39. *Lanius varius*. 43.

Is brown ash above, the throat and breast being yellowish buff colour; the belly, rump, and ventlet, are dirty brownish white; the interscapular region is white; the tail and wings are brown.

L. varius. Lath. ind. orn. i. 78. n. 39.—White-shouldered Shrike. Lath. fyn. i. 190. n. 43.

Inhabits Brazil.—The bill, legs, and feet, are black; the shoulders are each marked with a conspicuous white spot; the forehead and cheeks are marked with paler brown spots.

311

43. Spotted Shrike.—40. *Lanius naevius*. 44.

Is black above, and ash coloured beneath; the wings have each an oblong white spot on the coverts.

L. naevius. Lath. ind. orn. i. 81. n. 51.—Spotted Shrike. Lath. fyn. i. 190. n. 45.

Inhabits Cayenne.—This species resembles the Pied Shrike, but is smaller; the bill, legs, and feet, are black; some of the feathers at the fore part of the back are tipped with white; the wing quills are edged with white, and the tail quills have white tips.

312

44. Dusky Shrike.—41. *Lanius obscurus*. 45.

Is dull black above, and white beneath, having a white line over each eye.

L. obscurus. Lath. ind. orn. i. 81. n. 52.—Dusky Shrike. Lath. fyn. i. 191. n. 46.

Supposed, by Mr Latham, to inhabit America.—This species is about the size of the last; the bill is pale; the wings and tail are darker than the body; the legs and feet are brown.

313

45. Brown Shrike.—42. *Lanius fuscus*. 46.

Is brown above, and white beneath; the straps are yellowish.

Brown Shrike. Lath. fyn. i. 191. n. 47.

Its place unknown.—The tips of the secondary wing quills, and the edges of the primaries, are yellowish; the bill is pale, with a black tip; the legs and feet are black.

314

46. Red Shrike.—43. *Lanius ruber*. 47.

Is red; the wing and tail quills being marked with eye-like spots, and tipped with black.

L.

L. ruber. Lath. ind. orn. i. 78. n. 41.—Red Lanius, or Red Butcher-bird. Bancroft, guian. 154.—Red Shrike. Lath. syn. i. 192. n. 48.

Inhabits Surinam.

315

47. American Shrike.—44. *Lanius americanus.* 48.

Is black above, and ash coloured beneath; the crown is black; the throat, cheeks, and ventlet, are white.

Black-crowned Shrike. Arct. zool. ii. 238. n. 128.

Inhabits North America.—This species is less than the Great Shrike, and is much akin to the Louisiana Shrike; it is considered as the same with that species by Mr Pennant; Mr Latham makes two distinct species, yet confuses the synonyms, quoting the descriptions of this species by Dr Gmelin and Mr Pennant, along with Dr Gmelin's Louisiana species to what he names the Louisiana Shrike, and referring, with Mr Pennant, the Louisiana species of the Pl. enlum. to this; I have preferred, however, the authority of Dr Gmelin, especially as Mr Latham and Mr Pennant do not agree together, and the latter naturalist seems not quite determined in his opinion.—T.

The tail is long, its middle feathers are entirely black, but the rest are white at the tips, the white increasing gradually on each quill, as it recedes from the middle, till the outermost is nearly altogether white; the primary wing quills have each a small white spot, and the ridge of each wing is marked with a white spot.

316

48. Lesser Shrike.—45. *Lanius minor.* 49.

Of an ash colour, with rose coloured breast and belly.

L. italicus. Lath. ind. orn. i. 71. n. 13.—*L. minor.* Gerin. orn. i. 72. t. 54.—Pie-grieffche d'Italie. Buff. ois. i. 298. Pl. enl. n. 32.—Lesser grey Shrike. Lath. syn. sup. 54. Arct. zool. ii. 241. A.

Inhabits Europe, particularly Italy, Spain, and Russia.—This species is allied to the Grey Shrike, formerly described: The fore-head is black, and a black line, from the root of the bill, passes through the orbits on each side to the back of the neck; the throat is white; the head, scrag, and sides of the neck, the back, and wing coverts are ash coloured, the rump being paler; the ridges of the wings are white; the primary wing quills are black, with a white spot on each near the base; the secondaries are black, with white tips; the tail is wedge-shaped, its quills are black with white tips, and white outer edges. Mr Latham thinks this species is very nearly akin to the Red Butcher Shrike.

317

49. Nootka Shrike.—46. *Lanius Nootka.* 50.

Of a black colour above, and white beneath; the crown is black, and a white collar surrounds the neck.

L. Nootka. Lath. ind. orn. i. 80. n. 48.—Naska Shrike. Lath. syn. sup. 55. Arct. zool. ii. 239. n. 130.

Inhabits Nootka Sound, on the north-west coast of America.—Is seven inches and a quarter in length; the bill, legs, and feet are black; a white line, with a black line directly below it, extends

over

over each eye to the nape of the neck; the lesser wing coverts are black, and the larger coverts white, dashed with black down the shafts; the primary wing quills are dusky, fringed, or edged, with yellowish brown; the secondaries are black, edged and tipped with white; the tail is black, and somewhat rounded, its four outermost quill feathers being tipped with white; the rump is ash coloured, its feathers being edged with grey.

318

50. Boulboul Shrike.—*Lanius Boulboul*.

Of a black colour, the breast and belly having a cinereous tinge; the wings are brown, each having two white bands. Lath. ind. orn. i. 80. n. 49. Syn. sup. 57.

Inhabits India.—Is about the size of the Fieldfare; the bill, legs, and feet are yellow.

319

51. Black-headed Shrike.—47. *Lanius melanocephalus*. 51.

The bill, head, and throat, are black; the body is olive coloured above and paler beneath; the tail is marked with a broad black band, and is yellow at the tip.

L. melanocephalus. Lath. ind. orn. i. 76. n. 29.—Black-headed Shrike. Lath. syn. i. 165. n. 12. t. 6.

Inhabits the Sandwich islands.—Is about six inches in length; the legs and feet are dusky.

320

52. Short-tailed Shrike.—48. *Lanius brachyurus*. 52.

The top of the head is rusty grey, with white eyebrows, and a black band across the orbits; the body is grey ash above, and yellowish white beneath; the tail is rounded. Pall. it. iii. 693. n. 5.

L. brachyurus. Lath. ind. orn. 76. n. 32.—Short-tailed Shrike. Lath. syn. i. 166. n. 13.

Inhabits Hungary, and is more rarely found in Dauria.—This species is about the size of the Butcher Shrike; the rump is somewhat rusty; the throat and ventlet are almost white; the wings are blackish, the feathers of the coverts having grey tips; the tail has ten short quills of a greyish brown, and, except the middle quills, they are tipped with white.

321

53. Red-tailed Shrike.—49. *Lanius phoenicurus*. 53.

The tail is long and rounded, and, with the rump, is very bright red; the orbits are crossed by a black band; the body is reddish grey above, and yellowish white beneath. Pall. it. iii. 693. n. 6.

L. phoenicurus. Lath. ind. orn. i. 71. n. 14.—Rufous-tailed Shrike. Lath. syn. i. 166. n. 14.

Inhabits rocky places on the river Onon in Siberia.—This species resembles the Butcher Shrike in size and general appearance.

322

54. Pied Shrike.—50. *Lanius doliaetus*. 16.

Is thickly variegated with black and white, in short interrupted bars; the tail is rounded. Mus. ad. frid. ii. 12.

L. doliatus. Lath. ind. orn. i. 80. n. 50.—*L. cayanensis striatus*. Briff. av. ii. 187. n. 21. t. 29. f. 3.—Pie-grièche rayée de Cayenne. Pl. enl. n. 297. f. 2.—Black-and-white Butcher-bird. Edw. av. v. 35. t. 226.—Pied Shrike. Lath. syn. i. 190. n. 44.

Inhabits Cayenne.—Is six inches and a half long; the bill is dusky; the legs, feet, and claws are brown; the pied appearance is produced by each feather being barred with black and white; the feathers on the top of the head are longish, of a white colour, tipped with black, and are capable of being erected into a kind of crest; the tail and wings are black, with transverse oblong white spots.

323

55. *Jocose Shrike*.—51. *Lanius jocosus*. 24.

The tail is rounded; the body is grey; the lower eyelid is purple; the ventlet is blood red. Amoen. acc. iv. 238.

L. jocosus. Lath. ind. orn. i. 73. n. 22.—*Merula sinensis cristata minor*. Briff. av. ii. 255. t. 21. f. 2.—Petit Merle huppé des Indes. Sonner. voy. ii. 189. t. 109.—Petit Merle huppé de la Chine. Buff. ois. iii. 318. Pl. enl. 508.—Jocose Shrike. Dixon, voy. f. p. 360. Lath. syn. i. 175. n. 26.

Inhabits China and India.—Is about the size of a Lark, measuring seven inches and a half long; the crown is black; the temples, chin, and throat are white; the belly whitish; the tail is brown, its four outermost quills having white tips; the legs, feet, and claws are black; the bill is straighter than in other species of the genus, but is notched on each side near the point. Mr Latham adds, that it is named *Koo-kai-koon* by the Chinese, and *Boulboul* by the inhabitants of Bengal; he likewise gives as a variety of this species the Chinese Nuthatch, of his own Synopsis and of an after genus in the Systema Naturae, where, on the authority of Dr Gmelin, it is allowed to remain in this edition; the name Boulboul is already applied to a different species.

324

56. *Rock Shrike*.—52. *Lanius infauftus*. 25.

The back is ash coloured; the tail is red and rounded, its two middle quills being ash coloured, with a black cross bar.

Corvus infauftus. Lath. ind. orn. i. 159. n. 22. Faun. suec. n. 93. Brun. orn. 10.—*Corvus ruficus*, f. Raben-art. S. G. Gmel. it. i. 50. t. 11.—*Merula saxatilis*. Gefn. av. 732. Raj. av. 68. n. 3. Briff. av. ii. 238.—*Merle de roche*. Buff. ois. iii. 351. t. 23. Pl. enl. n. 562.—*Codiroffo maggiore*. Olin. uc. t. 47.—*Greater Red-start*. Albin, av. iii. 51. t. 55. Will. orn. angl. 197. t. 36.—*Rock Shrike*. Lath. syn. i. 176. n. 27.—*Rock Crow*. Penn. Arct. zool. ii. 252. F.—*Paiffé folitaire*. Belon, ois. 322.—*Stein-Rotela*. Gefn. av. 732.—*Lappskata*, *Olyckfugl*, *Gertrudsfogel*, *Ulyksfuegl*. Faun. suec. 93.

This variety measures near eight inches long; the bill is blackish, about an inch long, and notched at both sides; the wings, legs, and feet are blackish; the tail, which is three inches long, has its two middle quills brown, and the rest red; the head and neck are dusky ash, with small red and brown spots; the upper part of the back is dusky brown, its hind part ash coloured; the breast and belly are orange, with small white and brown spots; the rays of the feathers are soft.

325

β. *Lesser Rock Shrike*.—52. β. *L. infauftus minor*.

The back is blackish, mixed with red and bluish ash, its hind part being white; the head and neck are bluish ash. Is a good deal smaller.

Turdus faxatilis. Syft. nat. ed. xii. 294. n. 4. Lath. ind. orn. i. 336. n. 33.—*Merula faxatilis minor*. Briff. av. ii. 240.—*Petrocosyphos*. Gefn. av. 767.—Blankoepfige rothe Amfel. Frifch, av. t. 32.

Inhabits most of Europe, and is found in Siberia.—This species lives in woods, deserts, and mountainous places, building in holes and caverns of inaccessible rocks, where it lays three or four eggs each brood : It has considerable affinity in external form to the Thrush and Crow, and accordingly Mr Latham ranks the larger variety with Crows, and the smaller with the Thrushes ; it resembles the Shrike, however, in its noisy and quarrelsome manners, and in feeding on any remains of flesh that comes in its way, and likewise feeds on worms and insects, with which it feeds its nestlings ; its song is tolerably pleasant.

326

57. Wreathed Shrike.—53. *Lanius faustus*. 26.

Of a grey colour above, with a white line behind the eyes ; the under parts of the body are rusty ; the tail is rounded. Amoen. acc. iv. 241.

White-wreathed Shrike. Lath. syn. i. 178. n. 28.

Inhabits China.—This species is about the size of a Fieldfare ; the bill, legs, and feet are pale ; the wings are rounded, the quill feathers being brownish, with grey margins, and marked with cross lighter brown lines ; the tail is brown, and is lined with lighter brown, like the wings.

II. P I E S.

The bill is convex, and somewhat compressed, or flattened, at the sides.

V. PARROT—5. *PSITTACUS*. 45.

The bill is much hooked; the upper mandible is moveable, and in many species is covered with a cere: The nostrils are rounded, and are situated in the base of the bill: The tongue is large, blunt, rounded, and fleshy: The feet have two toes placed forwards, and two backwards.

This very numerous genus is so remarkably distinguished from all others, that it may be reckoned an arrangement of nature rather than of artificial system; this was noticed by Pliny, who gives an exceedingly good distinctive mark from the tongue, which he justly observes is considerably larger than in other birds. It is a gregarious and clamorous race, extremely docile, and very imitative of sounds, even learning to counterfeit the human voice, and to articulate words with great distinctness, but the natural voice is loud, harsh, and unpleasant. Parrots live chiefly in pairs, of one male with a single female, but these associate in vast multitudes; they may be reckoned to hold the same place among birds that Apes and Monkeys occupy among the Mammalia; like these they are very numerous, very imitative, very mischievous, and very useless; they are likewise chiefly confined to the tropical regions of Asia, Africa, and America, though a few are found in colder countries, as far north as Carolina, and even southward at the Straits of Magellan. The head is generally large, with a flat crown, which in several species is furnished with a crest; the legs are for the most part short; the feet have four toes, two of which are turned back, but one of these can be brought forwards on occasion; the toes are very flexible, and are used like hands for holding any thing and carrying it to the mouth; they may be called prehensile feet from this property, to distinguish them from common climbing feet, which are not so variously useful; they climb with great facility, using the bill to assist the feet. Parrots are very long lived; they feed chiefly on nuts, fruits, and seeds, and can crack the hardest nut-shells with their bills. They breed in hollows of trees, without constructing any nest, and lay two or three white eggs each brood, which must be frequently each season, from the vast numbers that every where abound in the hot countries.

To facilitate, in some measure, the discovery of any particular species, in such a prodigious number, Dr Gmelin and Mr Latham have arranged this genus under two subdivisions, which are distinguished from each other by the form of their tails; in the first division, *Psittaci macrouri*, the tails are long, and wedge like, the middle tail quills being longer than those on each side; in the second subdivision, *Psittaci brachyuri*, the tails are short and the end is equal, all the feathers being of an equal length,

length, or nearly so. In the English nomenclature, which is adopted for this translation, regard has been paid chiefly to precision, preserving as much as possible the names already in use, particularly as employed by Mr Latham and Mr Edwards, but especially avoiding long compounded terms when others equally distinguishable could be found: The *Maccaws* have usually very long tails, and their bodies are generally larger than the other species; the *Cockatoos* are furnished with crests; the *Parakeets* are mostly small, but as these, the *Parrots*, and *Lorys*, have no particular distinction, these names are not here employed, especially as these differences in name, in a great many instances, have been chosen arbitrarily.

* Having long wedge-like tails.

327

1. Ara.—1. *Psittacus Macao*. 1.

Of a red colour, having naked wrinkly cheeks; the wing quills are blue above, and ruddy beneath; the scapulars are variegated with blue and green. Scop. an. i. 26.

Pf. Macao. Lath. ind. orn. i. 82. n. 1.—Pf. maximus alter. Aldr. orn. i. 665. f. p. 666. Raj. av. 29. n. 2.—Ara brasiliensis. Briss. av. iv. 184. t. 19. f. 1.—Ara premier. Fermin, furin. ii. 173.—Ara rouge. Buff. ois. vi. 179. Pl. enl. n. 12.—Maccaw. Albin, av. i. t. 11. Will. orn. angl. 73.—Red-and-blue Maccaw. Edw. av. t. 158. Bancr. guian. 156. Lath. syn. i. 199. n. 1.

Inhabits South America.—The body is as large as that of a common Hen, but with the tail measures more than a yard long; Mr Latham says two feet seven inches and a half: This species lives in palm woods, on the fruits of which it chiefly feeds; it breeds twice a year in hollows of trees, laying two eggs, not larger than those of pigeons, and a good deal resembling the eggs of partridges; on these the male and female sit alternately; when caught young it may be easily tamed, but the old birds are very stubborn; the flesh is eaten, but is dry and tasteless. The general colour of the body is a full scarlet; the wing quills, especially the outer ones, are blue; the coverts are mostly yellow; the long tail is red, its outer quills being blue; the temples are white; the upper mandible of the bill is white, and the lower mandible black.

328

2. Aracanga.—2. *Psittacus Aracanga*. 52.

Is pale scarlet, with naked wrinkly cheeks; the scapular feathers are yellow, tipped with green; the wing quills are blue above, and red beneath.

Pf. Aracanga. Lath. ind. orn. i. 83. n. 2.—Pf. erythroxanthus. Gefn. av. 721. Aldr. orn. i. 683.—Aracanga. Marcgr. braf. 206. Raj. av. 29. n. 3.—Aracanga Maccaw. Will. orn. angl. 111.—Ara jamaicensis. Briss. av. iv. 188. n. 2.—Petit Ara rouge. Buff. ois. vi. 180. Pl. enl. n. 641.—Jamaica Macaw. Alb. av. ii. t. 17. Brown, jam. 472.—Red-and-yellow Maccaw. Bancr. guian. 156. Lath. syn. i. 201. n. 2.

Inhabits Guiana, Brazil, and Jamaica.—This species is said by Dr Gmelin to equal the former, but Mr Latham informs us that it is smaller, and suspects it may only be a younger bird of the same species. The wing quills are scarlet, mixed with violet colour, on their upper surfaces, and dusky red beneath; two of these quills in the middle of each wing are dusky red on the upper half of their upper surfaces.

329

3. Military Maccaw.—3. *Psittacus militaris*. 2.

Is green, with blue wings; the tail and forehead are red; the cheeks are mostly naked, with feathered lines.

Pf. militaris. Lath. ind. orn. i. 83. n. 3.—Largest guiana Parrot. Bancr. guian. 158.—Great green Maccaw. Edw. av. t. 313.—Military Maccaw. Gent. mag. xlii. f. p. 505. Lath. syn. i. 203. n. 3.

Inhabits Guiana?—The bill is black; the rump and covert feathers of the wings are green tipped with blue; the cheeks are only feathered in stripes or lines, leaving the skin naked in the intervals.

330

4. Ararauna.—4. *Psittacus Ararauna*. 3.

Is blue above, and yellow beneath; the cheeks are naked, with feathered stripes.

Pf. Ararauna. Lath. ind. orn. i. 83. n. 4.—Pf. maximus cyano-croceus. Aldr. orn. i. 664. Raj. av. 28. n. 1. and 181. n. 5. Sloan, jam. ii. 296.—Ararauna. Marcgr. braf. 206. Albin, av. iii. t. 10. and ii. t. 17.—Ara brasiliensis cyano-crocea. Briff. av. iv. 193. t. 20.—Ara bleu. Ferm. furin. ii. 174. Buff. oif. vi. 191. Pl. enl. n. 36.—Blue-and-yellow Maccaw, and Brazilian Ararauna. Will. orn. angl. 110. n. 1. and 111. n. 4. t. 15.—Blue-and-yellow Maccaw. Edw. av. t. 159. Lath. syn. i. 204. n. 4.

331

β. Blue Ararauna.—4. β. *Pf. Ararauna caeruleus*.

The body and tail are blue above, and saffron yellow beneath; the cheeks are white and naked. Lath. ind. orn. i. 84. n. 4. β.

Pf. maximus caeruleus varius. Brown, jam. 272.—Pf. caeruleo-luteus. Klein, av. 24. n. 2.—Ara jamaicensis cyano-crocea. Briff. av. iv. 191. n. 3.—Blue Maccaw. Alb. av. iii. t. 10. Lath. syn. i. 205. n. 4. α.

Inhabits Jamaica, Guiana, Brazil, and Surinam.—This species equals any of the preceding in size. The upper part of the neck, back, wings, and tail are blue; the under part of the throat, breast, and belly are yellow; the tail is yellow in the *female*, and red in the *male*; the bill and chin are black; the eyelids are planted with black warty papillae; the temples and cheeks are white and naked, being striped with feathered spots of a bluish-black colour, which are wanting in the Blue variety.

332

5. Hyacinthine Maccaw.—*Psittacus hyacinthinus*.

Is violet blue, the head and neck being paler; the chin and orbits are yellow and naked.

Lath. ind. orn. i. 84. n. 5. Muf. parkinson.

Its place not mentioned.—This species is nearly equal in size to the former, measuring two feet four inches in length. The bill is very large, and entirely black; the head and neck are blue; the body is very full blue, verging to violet; the wing and tail quills are of the same colour, with greenish edges; the legs and feet are blackish ash colour.

333

6. Makawuanna.—5. *Psittacus Makawuanna*. 53.

Is dusky green above, the head being green mixed with blue; the chin, throat, and
upper

upper part of the breast are reddish; the under part of the breast and the belly are green; the rump is reddish brown.

Pf. Makavouanna. Lath. ind. orn. i. 84. n. 6.—Peruche Ara. Buff. oif. vi. 277.—Peruche Ara de Cayenne. Barrere, fr. equ. 145. Pl. enl. n. 864.—Parrot Maccaw. Lath. syn. i. 205. n. 5.

Inhabits Cayenne and Guiana.—This species, which measures eighteen inches long, is migratory; the cheeks are naked; the tail is nine inches long, with blue quill feathers, having brown tips on the outer webs; the wings are dusky green on their upper, and yellowish green on their under surfaces.

334

7. Black Maccaw.—6. *Psittacus ater*. 54.

Is black, with a splendid green tinge; the eyes and bill are red; the legs and feet are yellow.

Pf. ater. Lath. ind. orn. i. 84. n. 7.—Ara noir. Buff. oif. vi. 202.—Ararauna, Machao. De Laet, desc. des Indes or. 490.—Black Maccaw. Lath. syn. i. 206. n. 6.

Inhabits Guiana.—This species is found on the barren ridges and rocky mountains in the interior parts of the country.

335

8. Obscure Parrot.—7. *Psittacus obscurus*. 4.

Is brown, with naked red cheeks; the crown is variegated with blackish ash; the tail is ash coloured. Haffelqu. it. 236. n. 18.

Pf. obscurus. Lath. ind. orn. i. 84. n. 8.—Obscure Parrot. Lath. syn. i. 206. n. 7.

Inhabits Africa.—This species is about the size of a Magpie; the bill and frontlet, the legs, feet, and claws are black; the space round the eyes are white; the irides are yellow; the back of the neck, or scrag, and upper surfaces of the wings are black; the belly is ash coloured.

336

9. Noble Parrot.—8. *Psittacus nobilis*. 5.

Is green, with naked cheeks, and scarlet shoulders. Mus. ad. frid. ii. 13.

Pf. nobilis. Lath. ind. orn. i. 85. n. 9.—Noble Parrot. Lath. syn. i. 207. n. 8.

Inhabits Surinam.—This species is about the size of a Turtle dove; the face is white and naked.

337

10. Maracana.—9. *Psittacus severus*. 6.

Is green, with naked cheeks; the wing and tail quills are blue above and purplish underneath. Mus. ad. frid. i. 13. Scop. an. i. 27. n. 23.

Pf. severus. Lath. ind. orn. i. 85. n. 10.—Maracana. Marcgr. bras. 207. Will. orn. 112. n. 5. 6. Raj. av. 29. n. 5. Sloan, jam. ii. 297.—Ara brasiliensis viridis. Briss. av. iv. 198. n. 6.—Ara vert. Buff. oif. vi. 194. t. 8.—Ara vert de Bresil. Pl. enl. n. 383.—Brazilian green Maccaw. Edw. av. t. 229. Lath. syn. i. 208. n. 9. sup. 58.

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β. Dusky Maracana.—9. β. *Pf. severus erythrochlorus*.

Is dusky green, with a brown forehead, and greenish blue crown.

Ara





N° 439

N° 498

N° 337



N° 563
578

N° 565
558

St. Andrew's

Ara brasiliensis erythrochlora. Briss. av. iv. 198. n. 7.

Inhabits Brasil, Guiana, and Jamaica.—Is about seventeen inches long; the bill and claws are black; the cheeks are streaked with black; the irides are golden yellow; the plumage is green; the fore-head is purplish chestnut; the crown of the head is blue; the upper surface of the tail is green, growing blue towards the tip; the legs and feet are brown, with black claws. In the Dusky variety the plumage is of a dusky or darker green colour; the fore-head is brown, and the crown of the head is greenish blue; perhaps the difference may be owing to age or sex.

339

11. Ginge Parrot.—10. *Psittacus Eupatria.* 7.

Is green, with naked cheeks, scarlet shoulders, and purple red bill.

Pf. Eupatria: Lath. ind. orn. i. 85. n. 11.—*Psittaca ginginiana.* Briss. av. iv. 343. n. 64. t. 29. f. 1.—Perruche de Ginge. Pl. enl. n. 239.—Grande Perruche à ailes rougeâtres. Buff. ois. vi. 156.—Gingi Parrot. Lath. syn. i. 209. n. 10.

Inhabits Ginge in India.—Measures twenty-one inches long: The orbits are naked and ruddy; the body is deep olive green above, and pale green mixed with yellow beneath; the chin and throat are somewhat ash coloured; the wings and tail are green; the upper coverts are red; the legs and feet are reddish, with black claws; the two middle feathers of the tail are greatly longer than the rest; the bill is of a scarlet colour, verging to purple.

340

12. Japonese Parrot.—11. *Psittacus japonicus.* 8.

Is green above, and red beneath; the lateral tail quills are red, and the wing quills blue.

Pf. japonicus. Lath. ind. orn. i. 86. n. 12.—Pf. erythrochlorus macrourus. Aldr. orn. i. 678. f. p. 681. Raj. av. 34. n. 3.—*Psittaca japonensis.* Briss. av. iv. 362. n. 71.—Perruche vert-et-rouge. Buff. ois. vi. 159.—Red-and-yellow, or Pale-green Parrot. Will. orn. angl. 116.—Japonese Parrot. Lath. syn. i. 209. n. 11.

Inhabits the southern parts of Japan.—The tail is longer than the body, its two middle quills being green with white shafts, and the rest red with black shafts; the bill and irides are red; the cheeks, before and behind each eye, are marked with blue spots; the interscapular region is blue; the chin is rusty red; the under parts of the body are streaked longitudinally with black lines; the legs, feet, and claws are black.

341

13. Amboina Parrot.—12. *Psittacus amboinensis.* 9.

Is scarlet, the back being blue; the wings have each a green spot.

Pf. amboinensis. Lath. ind. orn. i. 86. n. 13.—*Psittaca amboinensis coccinea.* Briss. av. 378. t. 28. f. 2.—Lori-perruche tricolor. Buff. ois. vi. 138.—Perruche rouge d'Amboina. Pl. enl. n. 240.—Amboina red Parrot. Lath. syn. i. 210. n. 12.

Inhabits Amboina.—Is fifteen inches and a half long; the bill, legs, feet, and claws are red, the first having a black tip; the under coverts of the tail are violet in the middle; the two middle tail quills
measure

measure nine inches and a half long, and are of a brownish violet colour; the two outer tail quills on each side are scarcely six inches long, and are red on their inner edges.

342 14. Blue-headed Parrot.—13. *Pfittacus cyanocephalus*. 10.

Is green, the head and chin being blue.

Pf. cyanocephalus. Lath. ind. orn. i. 86. n. 14.—*Pfittaca cyanocephala*. Briss. av. iv. 359. t. 19. f. 2.—*Perruche à tête bleue*. Buff. ois. vi. 145. Pl. enl. n. 192.—Blue-headed Parrot. Lath. syn. i. 211. n. 13.

Inhabits India.—Is not quite twelve inches long; the upper mandible is yellow, with a pale ash coloured tip, the lower mandible is wholly ash coloured; the space round the eyes is naked and yellowish; the under parts of the body are yellowish green; the chin is bluish violet; the sides of the neck are yellow; the under surfaces of the wings are ash coloured; the under surface of the tail is yellowish ash; the legs and feet are bluish, with grey claws.

343 15. Red-breasted Parrot.—14. *Pfittacus haematotus*. 50.

Is green, the breast being red, the face blue, and the crown marked with a yellow semilunar spot.

Pf. haematotus. Lin. mantiss. 1771, p. 574.—*Pfittaca amboinensis varia*. Briss. av. iv. 364. n. 72.—*Perruche à face bleue*. Buff. ois. vi. 150.—*Perruche d'Amboine*. Pl. enl. n. 61.—Red-breasted Parakeet. Edw. glean. t. 232.—Red-breasted Parrot. Lath. syn. i. 212. n. 14.

Inhabits Amboina.—This species measures fifteen inches long; the bill and cere are yellowish; the frontlet and part of the crown are blue; the hind head is greenish; the feathers of the breast are edged with blue; the legs and feet are blackish.

344 β. Molucca Red-breasted Parrot.—14. β. *Pf. haematotus moluccanus*.

The breast is red, varied with yellow; the head, chin, and middle of the belly, are blue.
Lath. ind. orn. i. 87. n. 17. β.

Perruche des Moluques. Buff. ois. vi. 150. Pl. enl. n. 743.—Orange-breasted Parrot. Lath. syn. i. 212. n. 14. α.

Inhabits the Molucca islands.—The bill is reddish white, with a yellowish cere; the whole head is blue; the belly is blue on the middle, forming a large spot.

345 γ. Southern Red-breasted Parrot.—14. γ. *Pf. haematotus novae-hollandiae*.

The breast is red, varied with yellow; the head, chin, and whole of the belly, are blue.
Lath. ind. orn. i. 87. n. 17. γ.

Blue-bellied Parrot. Brown, illustr. 14. t. 7. Lath. syn. i. 213. n. 14. β. Phillips voy. to Bot. bay, f. p. 152.

Inhabits New-holland.—The bill is red, with a yellowish cere; the head, neck, and whole of the belly are blue.

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♂. Davies Red-breasted Parrot.—*Pf. haematotus daviesianus*.

The breast is red, varied with yellow; the head, chin, and belly, are blue; the scapulars are spotted with red and yellow. Lath. ind. orn. i. 87. n. 17. ♂. Mus. Daviesianum.

Blue-bellied Parrot. Lath. syn. sup. 59. n. 14. c.

Inhabits New-holland.—This variety resembles the one immediately preceding, except that the feathers of the nape of the neck have reddish edges, and that the scapulars are spotted with red and yellow.

347

16. Black-crowned Parrot.—15. *Pfittacus atricapillus*. 55.

Is blue above, with a black crown; the chin, throat, and breast, are red; the belly and ventlet are green; the neck is surrounded by a red and green collar.

Pf. atricapillus. Lath. ind. orn. i. 88. n. 18.—*Pf. orientalis exquisitus*, Loeri. Seba, mus. i. 63. t. 38. f. 4.—*Pf. capite nigro*. Klein, av. 25. n. 16.—*Ara moluccensis varia*. Briff. av. iv. 197. n. 5.—Grand Perruche à bandeau noir. Buff. ois. vi. 158.

Inhabits the Molucca islands.—Is fourteen inches long; the wings and the upper coverts of the tail are blue; the lower tail coverts are green, varied with red; the tail quills are green above, and red beneath, with black edges; the collar is situated at the upper part of the neck.

348

17. Tabuan Parrot.—16. *Pfittacus tabuenfis*. 56.

Is green above; the head, neck, breast, and belly, being reddish purple; the crown is separated from the hind head by a semilunar blue bar; the primary wing quills, and most of the tail quills, are blue.

Pf. tabuenfis. Lath. ind. orn. i. 88. n. 19.—Tabuan Parrot. Cook's last voy. i. 335. Lath. syn. i. 214. n. 16. t. 7.

Inhabits Tongataboo, in the friendly islands.—Is nineteen inches long; the bill is black, its lower mandible being surrounded with green feathers; the back and the wing coverts are green; the spurious wings are blue; the secondary wing quills are green, with blue edges; the two middle tail quills, which measure eight inches long, are blue, edged and tipped with green; the rest are blue, with black shafts; the legs and feet are dusky.

349

β. Scarlet Tabuan Parrot.—*Pf. tabuenfis coccineus*.

Is green; the head, neck, breast, and belly, being scarlet; the neck is separated from the back by a semilunar blue bar; the wings are green; the rump is blue, and the tail is deep blue. Lath. ind. orn. i. 88. n. 19. β.

Tabuan Parrot. Phillips, Bot. bay, f. p. 153.

Inhabits New-south-wales.—Is of the same size with the preceding; the bill is brown, its upper mandible being tinged with red; the colour of the head, neck, and under parts of the body is very bright scarlet; the wing coverts are crossed by a light yellowish green bar; the legs and feet are ash coloured.

350

18. Papuan Parrot.—17. *Psittacus papuensis*. 57.

The head, neck, and breast, are red; the hind head is marked with a blue spot and two black femilunar bars; the wings and part of the back are green; the rest of the back, the belly, and tip of the tail, are red.

Pf. papuensis. Lath. ind. orn. i. 88. n. 20.—Petit Lori papon. Sonner, voy. 175. t. 111—Papuan Lory. Lath. syn. i. 215. n. 17.

Inhabits Papua, in New-guinea.—Is sixteen inches long; the bill, legs, and feet are red; the wings are short; the hind part of the back is marked in the middle with a longitudinal streak, which is red at the sides and blue in the middle; the wings are each marked, near the origin, with an oblong yellow spot; the plumage of the thighs is yellow; the first two-thirds of the tail is green, its extreme third being yellow.

351

β. Purple-breasted Papuan Parrot.—17. β. *Ps. papuensis porphyrostethos*.

The breast is purplish; the belly is crossed by a black bar edged with green. Lath. ind. orn. i. 88. n. 20. β. Syn. i. 215. n. 17. A.

Inhabits with the former.—The black band on the belly is edged on its fore or upper part with green.

352

γ. Black-backed Papuan Parrot.—17. γ. *Ps. papuensis melanonotos*.

Is scarlet; the hinder part of the back is bluish black; the back is marked with a yellow spot between the wings. Lath. ind. orn. i. 89. n. 20. γ. Syn. i. 215. n. 17. B.

Inhabits with the former.—The crown of the head is bluish black; the fore part of the back is blue, varied with green; the sides and the thighs are yellow.

353

δ. Green-bellied Papuan Parrot.—17. δ. *Ps. papuensis chlorogaster*.

The middle part of the belly is green. Lath. ind. orn. i. 89. n. 20. δ. Syn. i. 215. n. 17. C.

Inhabits with the former.—The breast is marked with an interrupted crescent of a yellow colour.

354

19. Borneo Parrot.—18. *Psittacus borneus*. 11.

Is red; the wing and tail quills being tipped with green; the wings have each a remarkable blue spot; the orbits are brown.

Pf. borneus. Lath. ind. orn. i. 89. n. 21.—Psittaca coccinea bonarum fortunarum insulae. Briff. av. iv. 373. n. 77.—Lori-perruche rouge. Buff. ois. vi. 137. n. 1.—Long-tailed scarlet Lory. Edw. av. t. 173. Lath. syn. i. 216. n. 18.

Inhabits India.—Is nine inches and a half long; the bill is orange; the space round the eyes is brown and naked; the wing quills are varied with green and blue dots; the two outer tail quills have a greenish tinge; the under tail coverts are red, with blue edges; The crown, scrag, and breast have a violet tinge; the legs and feet are brown.

355

20. Indian Parrot.—19. *Psittacus indicus*. 58.

Is scarlet, variegated with brown and violet; the upper part of the head and neck, the breast, and a band behind the eyes, are violet; the feathers of the greater wing coverts are tipped with light brown; the lesser coverts, and the tail quills, are brown, with a violet tinge.

Pf. coccineus. Lath. ind. orn. i. 89. n. 22.—*Psittaca indica coccinea*. Briss. av. iv. 376. t. 25. f. 2.—Lori-perruche violet-et-rouge. Buff. ois. vi. 138. n. 2.—Perruche des Indes orientales. Pl. enl. n. 143.—Indian Lory. Lath. syn. i. 217. n. 19.

Inhabits Amboina.—Is nearly eleven inches long; the bill is reddish, with a black tip; the legs and feet are brown; the under parts of the body are varied with brown and violet: In the specimen described by Buffon the primary wing quills are yellow; this circumstance therefore should either constitute a separate variety, or is to be considered as an omission by Dr Gmelin.

356

21. Beautiful Parrot.—20. *Psittacus elegans*. 59.

Is brown above, and red beneath, with a red head and neck; having a greenish brown tail tipped with whitish.

Pf. elegans. Lath. ind. orn. i. 89. n. 23.—Beautiful Lory. Lath. syn. i. 217. n. 20.

Inhabits the Molucca islands.—Is fifteen inches long; the feathers on the upper parts of the body are brown, edged with red and green; those of the shoulders, and the wing and tail quills have blue edges; the outer tail quills are tipped with white; the bill is yellowish brown.

357

β. Green beautiful Parrot.—20. β. *Pf. elegans viridis*.

The upper part of the body, the wings, and the tail, are green; the head, neck, and breast, are scarlet. Lath. ind. orn. 90. n. 23. β. Syn. i. 218. n. 20. A.

Inhabits with the former.—This variety measures only twelve inches in length; the bill is of a leaden colour, with a yellow tip.

358

22. Gueby Parrot.—21. *Psittacus guebienfis*. 60.

Of a bright red, or scarlet colour; the wing quills are black, with a transverse red band; the tail is brownish red.

Pf. guebienfis. Lath. ind. orn. i. 90. n. 24.—Petit Lori de Gueby. Sonner, voy. 174. t. 109.—Lori rouge-et-violet. Buff. ois. vi. 135.—Lori de Gueby. Pl. enl. n. 684.—Gueby Lory. Lath. syn. i. 219. n. 21.

Inhabits the island of Gueby.—Is nine inches and a half long; the bill and irides are flame coloured; a purple shade begins at the back of the neck and spreads downwards to the breast: Mr Latham adds that the interscapular region, the breast and belly, are purple, the last being of a darker shade.

359

23. Violet Parrot.—22. *Psittacus janthinus*. 61.

The head and upper parts of the body are red; the under parts are violet; the shoulders are blue; the tail and wings are varied with green and red.

Pf. guebiensis janthinus. Lath. ind. orn. i. 90. n. 24. β .—Perroquet violet. Ferm. furin. ii. 175.—
Violet Lory. Lath. syn. i. 220. n. 21. A.

Inhabits South America, on the banks of the river Amazons.—The bill is black, and the irides are golden yellow : Mr Latham, at the same time that he ranks this as a variety only of the last, marks his suspicion that it may possibly be a distinct species ; the great diversity of the two places in which they are found strongly confirms this idea.

360

24. Variegated Parrot.—23. *Psittacus variegatus*. 62.

The prevailing colour is scarlet ; the nape of the neck, beginning of the back, the breast and belly, are bluish purple ; the wings are red above, and yellow beneath ; the tail is green.

Pf. variegatus. Lath. ind. orn. i. 90. n. 25.—Variegated Lory. Lath. syn. i. 220. n. 22.

Inhabits India.—Is from ten to eleven inches long ; the bill is dusky ; the posterior part of the belly verges towards greenish black ; the tail quills are reddish on the inner webs near the base, and blue on the exterior webs near the tips.

361

25. Pennantian Parrot.—*Psittacus Pennantii*.

Is scarlet ; the fore part of the back is black, waved with scarlet ; the sides and throat are blue ; the wing quills are each marked with a white spot. Lath. ind. orn. i. 90. n. 26. Syn. sup. 61.

Inhabits New-south-wales.—Is fifteen inches long ; the lesser wing coverts are bluish green ; the outer tail quills are tipped with white. In the *female* the crown of the head is of a blood red colour ; the back and belly are green ; the thighs and ventlet are red.

362

β . Phillips Pennantian Parrot.—*Pf. Pennantii Phillippi*.

The middle of each wing is marked with a pale band. Lath. ind. orn. i. 91. n. 26. β . Phillip, Bot. bay, f. p. 154.

Inhabits with the former, and is about the same size.—This variety resembles the former very much, being of a scarlet colour on the head, neck, and under parts of the body ; the back is black, its feathers being edged with crimson ; the chin, wings, and tail are blue ; the wing coverts are pale blue, and a pale blue band stretches obliquely from thence through the wing ; the under coverts of the wings are black ; the wing and tail quills are black, the outer webs being blue ; the three outer tail quills on each side have the lower half of the exterior web of a pale hoary blue ; the lower parts of the thighs are blue ; the legs and feet are dusky, with black claws.

363

26. Splendid Parrot.—*Psittacus gloriosus*.

Is bright blood red, the back feathers being edged with black ; the chin, wings, and tail, are blue.

Pf. gloriosus, or Splendid Parrot. Nat. mis. N^o. xviii. t. 53.

Inhabits

Inhabits New-holland.—The body is about the size of a Pigeon, or rather larger, and with the tail measures sixteen inches long : The under parts of the body are paler than the upper, and want the femilunar black spots, formed by the black edges of the feathers on the back ; the shoulders of the wings are black ; the wing coverts are blue, the secondary coverts being tinged with green ; the primary wing quills are black, and the secondaries blue ; the rump is red, without spots ; the two middle tail quills are green, and the rest are blue ; the bill is pale ; the legs, feet, and claws are ash coloured : The colours of the *female* are much less brilliant, and her back is olive green.

364

27. New-guinea Parrot.—24. *Psittacus novae-guineae*. 63.

Is black, with a splendid blue tinge ; the orbits are brown and naked ; the under surface of the tail is red.

Pf. novae-guineae. Lath. ind. i. 91. n. 27.—Lori noir de la nouvelle-guinée. Sonner. voy. 175. t. 111.—Black Lory. Forreft. voy. 133. Lath. fyn. i. 221. n. 23.

Inhabits New-guinea.—The bill, legs, and feet are blackish ; the irides are divided into two circles, of which the outer is blue, and the inner brownish red.

365

28. Javan Parrot.—25. *Psittacus javanicus*. 64.

Is scarlet, with silvery naked orbits, and a crest on the head ; the two middle tail quills are scarlet, the side ones are rose colour mixed with green and tipped with blue.

Pf. Bontii. Lath. ind. orn. i. 92. n. 29.—Pf. parvus Bontii. Raj. av. 34. n. 5.—*Psittaca javensis cristata coccinea*. Briss. av. iv. 381. n. 80.—Perruche huppée. Buff. ois. vi. 160.—Bontius small Parrakeet. Will. orn. angl. 120. n. 7.—Crested red Parrakeet. Lath. fyn. i. 223. n. 25.

Inhabits Java.—This species is about the size of a Lark ; The bill is grey, with a whitish cere ; the eyes are black ; the chin is grey ; the shoulders and wings are mixed red and green.

366

29. Jandaya.—26. *Psittacus Jandaya*. 65.

The head, neck, and under parts of the body, are yellow, the rest being green.

Pf. Jandaya. Lath. ind. orn. i. 92. n. 30.—*Psittacula brasiliensis lutea*. Briss. av. iv. 399. n. 91.—Jandaya. Will. orn. 116. s. 4. n. 5. Raj. av. 34. n. 5. Buff. ois. vi. 262.—Yellow-headed Parrot. Lath. fyn. i. 224. n. 26.

Inhabits Brasil.—Is about the size of a Blackbird : The bill, legs, feet, and claws are black ; the orbits are white and naked ; the irides are orange yellow ; the hinder part of the belly is green.

367

30. Angola Parrot.—27. *Psittacus fufcitialis*. 12.

Is yellow, with red orbits ; the wing coverts are green ; the exterior webs of the outer tail quills are blue.

Pf. fufcitialis. Lath. ind. orn. i. 92. n. 31.—Pf. aurantius. Miller, illustr. t. 5. A.—Pf. croceus. Klein, av. 25. n. 15.—Pf. luteus macrourus. Frisch, av. t. 53.—*Psittaca angloensis lutea*. Briss. av. iv. 371. n. 76.—Perruche jaune. Buff. ois. vi. 147.—Angola Perroquet. Albin. av. iii. t. 13.—Angola yellow Parrot. Lath. fyn. i. 224. n. 27.

Inhabits

Inhabits Angola.—Is near a foot in length, the body being about the size of a Turtle-dove: The bill is greenish, with a pale ash coloured cere; the irides are yellow; the back is spotted with greenish yellow; the outer edges of the wing coverts are blue; the six middle tail quills are yellowish green on both webs, the outer ones being blue on the exterior webs; the legs, feet, and claws are ruddy.

368

31. Guarouba.—28. *Psittacus Guarouba*. 66.

Is yellow; the larger wing coverts being green.

Pf. luteus. Lath. ind. orn. i. 92. n. 32.—*Psittaca brasiliensis lutea*. Briss. av. iv. 369. n. 74.—Quarouba, Perruche jaune. Buff. ois. vi. 272.—Perruche jaune de Cayenne. Pl. enl. n. 525.—*Quijubatu*. Raj. av. 35. Will. orn. 117.—Brazilian yellow Parrot. Lath. syn. i. 225. n. 28.

Inhabits Brazil and the country of the Amazons.—This species, which is eleven inches long, is of a solitary nature, and less numerous than most others of the genus; it is however readily made tame, but is not easily or perfectly taught to speak: The bill is grey; the eyes are black. Mr Latham adds that in young specimens of this species the back and wings have a few scattered green spots, and that the tail quills have green edges.

369

β. Mexican Guarouba.—28. β. *Pf. Guarouba mexicanus*.

Is yellow, with a reddish head, orange coloured neck, and green wings. Lath. ind. orn. i. 93. n. 32. β.

Pf. mexicanus, *Avis cocho*. Seb. mus. i. t. 64. f. 4.—*Psittaca mexicana lutea*. Briss. av. iv. 374. n. 75.—Mexican yellow Parrot. Lath. syn. i. 226. n. 28. A.

Inhabits Mexico and New Spain.—The bill is red; the wing coverts are variegated with green, red, and orange; the wing quills are green.

370

32. Carolina Parrot.—29. *Psittacus carolinensis*. 13.

Is green; having the head, neck, and knees, orange yellow. Scop. an. i. 29. n. 25.

Pf. carolinensis. Lath. ind. orn. i. 93. n. 33.—*Psittaca carolinensis*. Briss. av. iv. 350. n. 67.—Perroquet. Ferm. surin. ii. 176. n. 7.—Parrokeeto. Lawton, carol. 142.—Perruche à tête jaune. Buff. ois. vi. 274.—Perruche de la Caroline. Pl. enl. n. 499.—Caroline Parrot. Lath. syn. i. 227. n. 29. sup. 59. Catesb. carol. i. t. 11. Arct. zool. ii. 242. n. 132.

Inhabits Guiana, and migrates into Carolina and Virginia during the season of ripe Mulberries.—This species is thirteen inches long, which is chiefly made up by the length of the tail, for it only weighs three ounces and a half; it is gregarious, and very destructive to orchards; it builds in hollow trees in low swampy places, is easily tamed, but does not readily learn to speak: The bill is yellowish white; the fore-head, ridge of the wings, and bracelets, or a ring of feathers round the knees, are orange; the head and neck are yellow; the back, body, and the wing and tail coverts are green; the primary wing quills are dusky, mixed with blue and green; the legs and feet are white.

371

33. Alexandrine Parrot.—30. *Psittacus Alexandri*. 14.

Is green; with a red breast, red collar, and black chin.

Pf. Alexandri. Amoen. av. iv. 26. Mus. ad. frid. ii. 14. Scop. an. i. 29. n. 26. Lath. ind. orn. i. 97. n. 46.—Pf. cubicularis. Haffelqu. voy. 235.—Pf. torquatus. Aldr. orn. i. 678. Raj. av. 33. n. 1.—Pittaca torquata. Briss. av. iv. 323. n. 55.—Perocello. Olin. ucc. t. 24.—Grande Perruche à collier rouge-vif. Buff. ois. vi. 141.—Perruche à collier des Maldives. Pl. enl. n. 642.—Ring Parrakeet. Will. orn. angl. 115. Edw. av. t. 292. f. 1.—Alexandrine Parrakeet. Lath. syn. i. 234. n. 37.

Inhabits Asia, and the Indian islands.—This species derives its trivial name from having been first noticed during the Indian expedition of Alexander of Macedon. The body is about the size of a Pigeon, and, with the tail, measures sixteen inches long; the bill is red; the nape of the neck is red, which furrounds the neck like a collar; at the base of each wing is a purple mark; the tail is yellowish on its under surface; the legs and feet are dusky.

372 β. Rose-ringed Alexandrine Parrot.—30. β. *Pf. Alexandri roseocollari*.

The collar is rose coloured. Lath. ind. orn. i. 98. n. 46. β.

Perruche à collier rosacé. Buff. ois. vi. 152. Pl. enl. n. 551.—Rose-ringed Parrakeet. Lath. syn. i. 255. n. 37. A.

Inhabits Africa.—Is fifteen inches and a half long; the hind head is bluish green; the bill is blood red, with black tips to both mandibles; the irides are yellow; the general colour, as in the former variety, is green, with a black chin; the collar consists of a very narrow line of pale rose colour surrounding the neck; the legs and feet are ash coloured.

373 γ. Purple-ringed Alexandrine Parrot.—30. γ. *Pf. Alexandri purpureocollari*.

The collar is purple. Lath. ind. orn. i. 98. n. 46. γ.

Pittaca indica torquata. Briss. av. iv. 326. n. 56.—East-indian Bracelet Parrakeet. Albin, av. ii. t. 18.—Purple-ringed Parrakeet. Lath. syn. i. 236. n. 37. B.

Inhabits India.—Is seventeen inches long; the upper mandible of the bill is orange, and the lower mandible black; the crown is bluish green; the throat and breast are pale rose colour; the orbits are brown.

374 δ. Double-ringed Alexandrine Parrot.—30. δ. *Pf. Alexandri duplocollari*.

The collar is double. Lath. ind. orn. i. 98. n. 46. δ.

Pittaca borbonica torquata. Briss. av. iv. 328. n. 57. t. 27. f. 1.—Perruche à double collier. Buff. ois. vi. 143.—Perruche à collier de Bourbon. Pl. enl. n. 215.—Double-ringed Parrakeet. Lath. syn. i. 236. n. 37. C.

Inhabits the isle of Bourbon.—Is thirteen inches and a half long; the throat and breast are streaked with yellow; the general colour is green; the collar round the neck is rose coloured, and double, being wider at the fore part; the sides of the neck, immediately below the under mandible of the bill, are black.

375 ε. Blue headed Alexandrine Parrot.—30. ε. *Pf. Alexandri cyanocephalus*.

Is green; with blue head, chin, and tail, and having naked red orbits.

Pf. indicus. Lath. ind. orn. i. 86. n. 15.—*Pfittaca cyanocephala*. Briff. av. app. 129.—Perruche à tete azur. Buff. oif. vi. 148.—Blue-headed Parrakeet. Edw. av. t. 292. Lath. fyn. i. 237. n. 37. D.

Inhabits India.—The bill is red; the orbits are naked and of a fleshy red or carnation colour, the irides being orange yellow; the wings are each marked with a yellow spot; the under surface of the tail is yellow; the legs and feet are ash coloured.—This bird should rather have been ranked as a variety of the Blue-headed Parrot, N^o. 343. with which it agrees, especially as the particular characteristic of the Alexandrine species, the collar, is wanting.—T.

376 ζ. Javan Alexandrine Parrot.—30. ζ. *Pf. Alexandri javanicus*.

Is green; the head being mixed blue and yellow, with black temples; the throat and breast are reddish.

Pf. Osbeckii. Lath. ind. orn. i. 87. n. 16.—*Pf. javanicus*. Osbeck, it. i. 156.—Javan Parrakeet. Lath. fyn. i. 237. n. 37. E.

Inhabits Java.—The bill is red, with a black cere, its under mandible being yellowish; the orbits are brown and naked; the colours of the head are pale blue and pale yellow mixed together; the chin is pale red; the breast is pale rose colour; the wing quills are ash coloured on their under surfaces, and have blue edges; five of the wing covert feathers are yellow, forming a large spot; the tail is blue above, and yellowish underneath; the legs and feet are greenish grey.—This ought doubtless either to have constituted a separate species, or at least to have been ranked as a variety of the Blue-headed Parrot. Both in this instance and the former variety the authority of Dr Gmelin has been adhered to, perhaps too rigidly, but no great confusion can thereby be occasioned to the student of Natural history, as the error is pointed out; to the experienced Naturalist no such precaution is necessary.—T.

377 34. Illinois Parrot.—31. *Pfittacus pertinax*. 15.

Is green; with tawny cheeks, the wings and tail being somewhat hoary. Mus. ad. frid. i. 14.

Pf. pertinax. Lath. ind. orn. i. 94. n. 34. Borowsk. nat. ii. 94. n. 15.—*Pfittaca illiniaca*. Briff. av. iv. 353. n. 68.—*Tui aputejuba*. Marcgr. braf. 206. Raj. av. 34. n. 2.—*Tui secundus*. Raj. av. 181. n. 6. Will. orn. 116.—*Aputejuba*. Buff. oif. vi. 269. t. 13.—Perruche illinoise. Pl. enl. 528.—Klein langschwanziger gruner Papagay. Frisch, av. t. 54.—Yellow-faced Parrakeet. Edw. av. 49. t. 234.—Illinois Parrot. Arct. zool. ii. 243. n. 133. Lath. fyn. i. 228. n. 30.

Inhabits America.—Is about thirteen inches long; this species migrates annually in summer to a more northern clime than is usual with this genus; it is found in Brazil and other parts of the tropical regions of America, and even passes the winter in the southern countries on the Mississippi, but in summer is found almost as high as lake Michigan; it is gregarious, and feeds on chestnuts, pease, and other seeds and fruits; it forms its nest in the large hills of ants or termites; is very active, but is a bad scholar in learning to speak; the flesh is eaten in America. The bill is ash coloured; the irides, the fore-head, cheeks, and sometimes the hind head are rich orange yellow; the crown, upper
part

part of the body, tail, and wing coverts are bright green; the primary wing quills are green, with blue outer edges; the ventlet is yellow.—Mr Pennant suspects that this species may only differ from the Carolina Parrot in sex.

378

35. Leverian Parrot.—32. *Psittacus Leverianus*. 67.

Is pale green; with yellow head and neck; the rump is scarlet; the wing and tail quills are blue at the tips.

Pf. erythropygius. Lath. ind. orn. i. 94. n. 35.—Crimson-vented Parrot. Lath. syn. i. 229. n. 31.

Inhabits southern Asia.—This species is of a middle size.

379

36. Emeraldine Parrot.—33. *Psittacus smaragdinus*. 68.

Is splendid green; the hinder part of the belly, the rump, and the tail, being rusty chestnut.

Pf. smaragdinus. Lath. ind. orn. i. 94. n. 36.—Perruche émeraude. Buff. ois. vi. 262.—Perruche des terres magellaniques. Pl. enl. n. 85.—Emerald Parrot. Lath. syn. i. 230. n. 32. sup. 60.

Inhabits the coasts of the Straits of Magellan.—Is thirteen inches long; the bill, legs, and feet are dusky; the tail is green at the tip. Dr Gmelin expresses a doubt, by a point of interrogation, whether the place of this species be, as is said, in a country so inhospitable as that surrounding the Straits of Magellan; but the general fact of Parrots being found there is indisputably proved by the concurrent testimony of the most respectable navigators, from Spilbergen and Dampier to the companions of Admiral Byron's voyage of discovery. Arct. zool. ii. p. 244.

380

37. Red-fronted Parrot.—34. *Psittacus canicularis*. 16.

Is green, with a red forehead and tawny orbits; the hind head and outer wing quills are blue.

Pf. canicularis. Lath. ind. orn. i. 94. n. 37.—*Psittaca brasiliensis*. Briff. av. iv. 339. n. 62.—Perruche à front rouge. Buff. ois. vi. 268. Pl. enl. n. 767.—Red-and-blue-headed Parrakeet. Edw. av. iv. t. 176. Lath. syn. i. 242. n. 40.

Inhabits the warmer parts of America.—Is about the size of a large Thrush: The under parts of the body are greenish yellow; the bill is blackish; the eyes are black; the legs and feet are reddish; the exterior webs of the wing quill feathers are greenish; the tail is very long.

381

38. Brown-throated Parrot.—35. *Psittacus aeruginosus*. 17.

Is green, with ash coloured orbits; the crown, and the primary wing quills, being blue.

Pf. aeruginosus. Lath. ind. orn. i. 95. n. 38.—*Psittaca martinicana*. Briff. orn. iv. 356. n. 69.—Perruche à gorge brune. Buff. ois. vi. 257.—Brown-throated Parrakeet. Bancr. guian. 162. Edw. av. iv. t. 177. Lath. syn. i. 243. n. 41.

Inhabits the tropical parts of America, and the West Indian islands.—Is somewhat more than ten inches long, and the tail is rather shorter than the body: The frontlet, cheeks, chin, and throat are

greyish brown mixed with yellow; the bill, cere, legs, feet, and claws are ash coloured; the irides are yellowish brown; the under parts of the body are yellowish green; the under surface of the tail is yellowish.

382

39. Red-billed Parrot.—36. *Psittacus rufirostris*. 18.

Is green, with red bill, orbits, legs, and feet; the tail quills being tipped with blue. Mus. ad. frid. ii. 13.

Ps. rufirostris. Lath. ind. orn. i. 95. n. 39. Ger. orn. ii. 19. t. 125.—*Psittaca*. Briss. orn. iv. 319 n. 54.—Perruche. Pl. enl. n. 550.—Sinvialo. Buff. ois. vi. 265.—Tui. Raj. av. 34. n. 1. Will. orn. 116.—Small long-tailed green Parrakeet. Brown, jam. 472.—Long-tailed green Parrakeet. Edw. av. t. 175. Lath. syn. i. 230. n. 33.

Inhabits South America.—Is twelve inches and a half long, gregarious, easily tamed, docile, and an excellent speaker: The red of the legs, feet, claws, and orbits is crimson or flesh coloured; the upper mandible of the bill is blood red, the under mandible being black; the irides are orange yellow.

383

β. Guiana Red-billed Parrot.—36. β. *Ps. rufirostris guianensis*.

The bill, legs, feet, and claws, are whitish red; the orbits are ash coloured. Lath. ind. orn. i. 96. n. 39. β.

Psittaca aquarum Lupiarum. Briss. av. iv. 330. n. 58.—Ajuru-catinga. Raj. syn. 33. n. 6. 7. Will. orn. 76. Id. angl. 115.—Guiana green Parrot. Bancr. guian. 161. Lath. syn. i. 231. n. 33. A.

Inhabits South America.—This variety is about the size of a Thrush; the irides have two coloured circles, of which the outer is reddish and the inner ash coloured.

384

40. Orange-billed Parrot.—37. *Psittacus ornatus*. 19.

Is yellowish green, with red hind head, chin, and breast; the crown and the ears being blue; the orbits are ash coloured.

Ps. ornatus. Lath. ind. orn. i. 91. n. 28. Borowk. nat. ii. 94. n. 16.—*Psittaca indica varia*. Briss. orn. iv. 366. n. 73.—*Avis paradisiaca orientalis*. Seb. mus. 95. t. 60. f. 2. 3.—Perruche Lori. Buff. ois. vi. 145.—Perruche variée des Indes orientales. Pl. enl. n. 552.—Lory Parrakeet. Edw. av. t. 174. Lath. syn. i. 221. n. 24.

Inhabits India.—Is eight inches long: The bill is pale orange, with a brownish cere; the irides are orange; the crown is bluish black, and the cheeks are each marked with two spots of the same colour, one behind and the other above the eyes; the under surface of the tail is reddish; the legs and feet are ash coloured.

385

41. Jaguilma.—38. *Psittacus Jaguilma*. 69.

Is green, with tawny orbits; the wing quills being tipped with brown. Molin. chil. 228.

Ps. Jaguilma. Lath. ind. orn. i. 96. n. 40.

Inhabits Chili.—This species is very imperfectly described; it passes the summer months in the great chain of the Andes, lives in very numerous flocks, making a great noise, and is very prolific;

it

it feeds on the buds of trees, and plants, making great havock in the country, and is reckoned tender high flavoured food.

386

42. Guiana Parrot.—39. *Psittacus guianensis*. 70.

Is green, with red spots on the cheeks, and red bracelets; the lesser wing coverts being scarlet, and the larger coverts yellow.

Pf. guianensis. Lath. ind. orn. i. 96. n. 41.—*Psittaca gujanensis*. Briss. av. iv. 331. n. 59. t. 28. f. 1.—Perruche pavouane. Buff. ois. vi. 255.—Perruche de la Guianne. Pl. enl. n. 167. 407.—Pavouane Parrot. Lath. syn. i. 232. n. 34.

Inhabits Guiana and the West India Islands.—This species measures twelve inches long, and is of a ferocious disposition: The bill and cere are whitish, the former having an ash coloured tip; the wing quills are yellow on their under surfaces, and are edged with blackish near the tips: In the younger animal, which is represented in the 167th plate of the Planches enluminées, while the other gives the full grown bird, the red spots on the cheeks are either altogether wanting or scarcely perceptible: The legs and feet are grey, with blackish claws.

387

43. Luzonian Parrot.—40. *Psittacus marginatus*. 71.

Is green; the wing coverts are black, the feathers of the lesser coverts having yellowish brown edges, and the greater coverts being edged with blue.

Pf. marginatus. Lath. ind. orn. i. 96. n. 42.—Perruche de Luçon. Sonner. voy. 80. t. 44.—Varied-winged Parrot. Lath. syn. i. 234. n. 36.

Inhabits the island of Luzonia.—The frontlet is splendid green; the bill is large and of a carnation red colour; the irides are white; the crown of the head is blue; the body is grass green above, and yellowish green beneath; the legs and feet are blackish.

388

44. Sonnerats Parrot.—41. *Psittacus Sonneratii*. 72.

Is green, with a blue collar; and having a red spot at the origin of each wing.

Pf. Sonneratii. Lath. ind. orn. i. 98. n. 47.—Perruche à collier de Luçon. Sonner. voy. 80. t. 43.—Blue-collared Parrot. Lath. syn. i. 234. n. 36.

Inhabits Luzonia.—The bill and irides are red; the head, neck, and belly are greyish green; the wings and back are grass green; the two middle tail quills are grass green, and the rest of a greyish green; the legs and feet are blackish grey.

389

45. Pondicherry Parrot.—42. *Psittacus pondicerianus*. 73.

Is green; the face and fore part of the head being variegated with blue and white, and having black streaks, like whiskers, on each side, extending from the bill to the chin.

Pf. pondicerianus. Lath. ind. orn. i. 99. n. 48.—Perruche à moustaches. Buff. ois. v. 149. Perruche de Pondichery. Pl. enl. n. 517.—Mustacho Parrakeet. Lath. syn. i. 238. n. 38.

Inhabits India, near Pondichery.—Is eleven inches long ; the breast is purplish blue ; the wing coverts are varied or spotted with yellow.

390 β . Bearded Pondicherry Parrot.—42. β . *Pf. pondicerianus barbatus*.

Is green ; the fore part of the face being chesnut, with a brown line on each side from the nostrils to the eyes ; the chin is black, extending backwards on each side like a beard. Lath. ind. orn. i. 99. n. 48. β .

Bearded Parrakeet. Lath. fyn. i. 238. n. 38. A.

Inhabits with the former.—This variety is of the same size with the former, from which, perhaps, it may only differ in sex : The nape of the neck is purplish red ; the wing quills have blue edges ; the bill is red ; the crown of the head is green ; the legs and feet are dusky.

391 46. Red-headed Parrot.—43. *Psittacus erythrocephalus*. 74.

Is green, the head being red mixed with blue, having a black chin, and a collar of black and pale green round the neck.

Pf. ginginianus. Lath. ind. orn. i. 99. n. 50.—*Psittaca ginginiana erythrocephalos*. Briff. av. iv. 346. n. 65. t. 29. f. 2.—Perruche à tete rouge. Buff. oif. vi. 144.—Perruche à tete rouge de Gingi. Pl. enl. n. 264.—Blossom-headed Parrakeet. Lath. fyn. i. 239. n. 39.

Inhabits India, near Gingee.—Is eleven inches long ; the under parts of the body are green verging towards yellow ; the wing coverts are marked with a red spot ; the legs, feet, and claws are ash coloured ; the inner edges of the tail quills are yellow ; the bill is reddish.

392 β . Bengal Red-headed Parrot.—43. β . *Pf. erythrocephalus bengalensis*.

Is yellowish green, the crown and cheeks being rose coloured ; the hind head, and the two middle tail quills, on their upper surfaces, are blue, the rest being edged with blue. Lath. ind. orn. i. 100. n. 50. β .

Psittaca bengalensis. Briff. av. iv. 348. n. 66.—Petite Perruche à long brins. Buff. oif. vi. 154.—Perruche de Mahé. Pl. enl. n. 888.—Perruche à tete rouge de Luçon. Sonner. voy. 79. t. 42.—Bengal Parrakeet. Albin, av. iii. 7. t. 14.—Rose-headed ring Parrakeet. Edw. glean. t. 233. Lath. fyn. i. 239. n. 39. A.

Inhabits Bengal.—Is ten inches long ; the upper mandible is yellow, and the under mandible black, with a brownish cere ; the under side of the body is yellowish green ; the wing coverts are marked with a dusky red spot ; the interior edges of the tail quills, and their under surfaces are yellow ; the chin and under sides of the cheeks are marked with a black line ; the legs, feet, and claws, are ash coloured.

393 γ . Borneo Red-headed Parrot.—43. γ . *Pf. erythrocephalus borneus*.

Is green ; the head, chin, throat, breast, and fore part of the belly, being of a reddish peach-blossom colour. Lath. ind. orn. i. 100. n. 50. γ .

Bornean Parrakeet. Lath. fyn. i. 240. n. 39. B.

Inhabits

Inhabits Borneo.—Is twelve inches long ; the bill is reddish, its under mandible being black ; the cere and orbits are ash coloured ; the fore-head is ash coloured, with a green spot, and having a black line across from one eye to the other ; the wing coverts are marked with a red spot ; the inner edges of the wing quills are blue ; the legs, feet, and claws are ash coloured. Mr Latham gives a different description of this variety, saying that the head is purplish blue, its fore part being green, with a black cross line ; each cheek is marked at its lower part with an oblique black bar ; the under part of the throat and breast are reddish chestnut.

394 ♂. Malacca Red-headed Parrot.—43. *Pf. erythrocephalus malaccensis*.

Is yellowish green ; the hind head and orbits being rose coloured. Lath. ind. orn. i. 100. n. 50. ♂.

Grande Perruche à long brins. Buff. oif. vi. 155.—Perruche de Malac. Pl. enl. n. 887.—Malacca Parrakeet. Lath. syn. i. 241. n. 39. c. sup. 60.

Inhabits Malacca.—Is sixteen inches long ; the bill is reddish ; the wing coverts are bluish green in the middle ; in this variety the black line, which in all the others stretches from the fauces towards the crown of the head, is wanting.

395 47. Spot-necked Parrot.—*Psittacus bimaculatus*.

Is green ; having two oblong black spots on the neck, and a large sulphur yellow spot on each wing. Mus. carlf. ii. t. 30. Lath. ind. orn. i. 99. n. 49.

Its place uncertain.—Is eleven inches long ; the bill is pale blood red ; the fore-head, chin, throat, cheeks, and sides of the neck are orange yellow ; the chin and throat are marked on each side with a large oval black spot, reaching from the base of the bill to the beginning of the breast, and with a number of small black spots ; the yellow spot on each wing is occasioned by the edges of the quill feathers being yellow.

396 48. Brown-fronted Parrot.—44. *Psittacus plumbeus*. 75.

Is green ; the bill, orbits, legs, and feet, being lead coloured ; the front, cheeks, and chin, are brown ; the edges and tips of the tail quills are blue. Lath. ind. orn. i. 95. n. 38. ♂.

Brown-fronted Parrakeet. Lath. syn. i. 243. n. 41. A.

Inhabits the tropical regions of America.—Is eleven inches and a half long ; the irides are chestnut or yellowish brown ; the crown is bluish ; the edges of the wing quill feathers are blue. Dr Gmelin suspects this may be a variety of the Brown-throated Parrot, N°. 381. and Mr Latham ranges it as such.

397 49. Buff-fronted Parrot.—*Psittacus bubalinus*.

Is green above, and yellowish green beneath ; having a yellowish brown or buff coloured forehead. Lath. ind. orn. i. 95. n. 37. ♂. Ger. orn. ii. 29. t. 127. ?

Perruche à front jaune. Pl. enl. n. 838.—Buff-fronted Parrakeet. Lath. syn. sup. 61. n. 135.

Inhabits

Inhabits Cayenne.—Is ten inches long; the bill is dusky; the fore-head and orbits are buff coloured, or pale yellowish brown; the crown of the head and the wing quill feathers are blue; the legs and feet are dusky red. Mr Latham ranks this as a variety of the Red-fronted Parrot, No. 380. but as it seems to agree more nearly with the preceding species, which is placed here after the example of Dr Gmelin, it has been thought better to insert it in this place.—T.

398

50. Lace-winged Parrot.—45. *Psittacus olivaceus*. 76.

Is olive-brown, with a bluish spot on the hind head; the wings are variegated with blue, green, and orange.

Pf. olivaceus. Lath. ind. orn. i. 97. n. 43.—Pf. minor lucionensis, *Psittacula lucionensis*. Ger. orn. ii. 21. t. 130.—Perruche aux ailes chamarrées. Buff. oif. vi. 151.—Perroquet de Luçon. Pl. enl. n. 287.—Lace-winged Parrakeet. Lath. syn. i. 244. n. 42.

Inhabits the island of Luzonia.—Is rather more than eleven inches long; the bill is red; the middle of the wings is blue; the tail is about one-third of the whole length of the body, and the wings reach to about its middle, when folded; the legs and feet are dusky. This species has considerable affinity to the Luzonian Parrot, No. 387.

399

51. Dubious Parrot.—*Psittacus dubius*.

Is green, with a reddish neck, and naked yellow orbits. Lath. ind. orn. i. 97. n. 44. Syn. sup. 62.

Its place uncertain.—Is nine inches long; the bill, legs, and feet, are pale horn coloured; the whole wing quills, and the four middle tail quills, have blue tips; the outer tail quills are tipped with yellow.

400

52. Orange-bellied Parrot.—*Psittacus chrysogaster*.

Is green, with a greenish bill, and having an orange coloured belly. Lath. ind. orn. i. 97. n. 45. Syn. sup. 62.

Its place uncertain.—Is seven inches and a half long; the greater coverts of the wings have blue outer webs, and their inner webs are each marked with a white spot; the four outer tail quills on each side have yellow tips; the legs and feet are greenish.

401

53. Greenish Parrot.—46. *Psittacus virescens*. 77.

Is greenish; the outer wing quills being white, edged and tipped with yellow.

Pf. virescens. Lath. ind. orn. i. 100. n. 51.—*Psittaca cayennensis*. Briff. av. iv. 334. n. 60. t. 27. f. 2.—Perruche à ailes variées. Buff. oif. vi. 259.—Petite Perruche verte de Cayenne. Pl. enl. n. 359.—Yellow-winged Parrakeet. Lath. syn. i. 244. n. 43.

Inhabits Cayenne.—This species measures eight inches in length; it is very numerous, not at all shy, extremely docile, and feeds much on the flowers of the *Erythrina coralliodendron*: The bill and cere are whitish; the wing coverts farthest from the body are greenish blue; those nearest the body are bluish green; the inner coverts are sulphur yellow; the lesser coverts are white at the base, and

on

on their inner webs, their outer webs and tips being yellow; most of the wing quills have yellow outer webs and tips, with yellowish white inner webs; the first five nearest the body are green, with black inner webs and white edges; the next seven are white, edged and tipped with yellow; the inner edges of the tail quills are yellowish; the legs and feet are grey.

402

54. Waved Parrot.—47. *Psittacus versicolor*. 78.

Is green, with brown head and throat, the latter being waved with tawny; the wings are blue, with a flame yellow bar; the belly is pale bluish purple, with brown waved lines.

Pf. *versicolor*. Lath. ind. orn. i. 101. n. 52.—Perruche à gorge variée. Buff. ois. vi. 259.—Perruche à gorge tachetée de Cayenne. Pl. enl. n. 144.—Perruche. Fermin, surin. ii. 177. n. 2.—Waved-breasted Parrakeet. Lath. syn. i. 245. n. 44.

Inhabits Cayenne and Surinam.—Is about the same size with the preceding species: The bill, legs, feet, and claws are black; the irides are flame coloured; the frontlet is dusky blue, or slate colour, above, and sky blue next the bill; the tail is lilac, or pale purplish blue, above, and reddish brown on its under surface; the under parts of the body are brown; the throat is aurora, or flame yellow, colour: This species is extremely rare.

403

55. Scaly Parrot.—*Psittacus squamosus*.

Is green; the feathers on the head, neck, and breast, having orange coloured edges. Lath. ind. orn. i. 101. n. 53.

Scaly-breasted Parrakeet. Lath. syn. i. 246. n. 45.

Inhabits Cayenne.—Is eight inches and a half long: The edges of the feathers, as above described, being on the lower part of both webs at the tips, give the appearance of scales; the shoulders are scarlet; the rump and middle of the belly are blood red; the bill, legs, and feet are dusky; the orbits are naked and pale.

404

56. Carnation Parrot.—48. *Psittacus incarnatus*. 79.

Is green, with carnation red bill, legs, feet, and claws; the cere and orbits are whitish; the chin and wing coverts are red.

Pf. *incarnatus*. Lath. ind. orn. i. 101. n. 54.—*Psittaca indica*. Briss. av. iv. 341. n. 63.—Perruche à gorge rouge. Buff. ois. vi. 157.—Red-winged Parrakeet. Edw. glean. t. 236. Lath. syn. i. 246. n. 46.

Inhabits India.—Is eight inches and a half long, of which the tail measures four inches and a half, the body being about the size of a Lark; the bill is pale horn colour; the irides are chestnut brown.

405

57. Grey-breasted Parrot.—49. *Psittacus murinus*. 80.

Is olive; the face, chin, and breast, being silver grey; the wing quills are green.

Pf. *murinus*. Lath. ind. orn. i. 101. n. 55.—Perruche. Pernetty, voy. to falk. isles. i. 312.—Perruche

Perruche fouris. Buff. oif. vi. 148.—Perruche à poitrine grife. Pl. enl. n. 768.—Grey-breasted Parrakeet. Lath. fyn. i. 247. n. 47.

Inhabits Monteviedo.—This species is of mild and docile manners; it measures ten inches in length, of which the tail is a half: The bill, legs, and feet are grey; Mr Latham says the bill is carnation red.

406

58. Horned Parrot.—50. *Psittacus cornutus*. 81.

Is green, with a scarlet head, having two long extended feathers like horns.

Pf. bifetis. Lath. ind. orn. i. 102. n. 56.—Horned Parrot. Cook, voy. ii. t. p. 110. Lath. fyn. i. 248. n. 48. t. 8.

Inhabits New-Caledonia.—Is eleven inches long: The bill, legs, and feet are dark blackish blue; the temples are orange yellow, the irides golden yellow, and a pale yellow, or straw coloured, collar furrounds the neck; the two elongated feathers from the crown of the head are each an inch and a half long, of a dusky colour with red tips; the wing coverts are dusky on their inner webs and at the tips; the wing and tail quills have their exterior webs edged with blue; the rump is pale yellow; the under surface of the tail is black.

407

59. Caledonian Parrot.—51. *Psittacus caledonicus*. 82.

Is olive, with a greenish yellow crown; the tail quills have whitish tips, and the outer edges of the four outermost are pale blue.

Pf. caledonicus. Lath. ind. orn. i. 102. n. 57.—Caledonian Parrot. Lath. fyn. i. 248. n. 49.

Inhabits New-Caledonia.—Is eleven or twelve inches long: The bill is bluish, with a pale tip; the frontlet is red above, and blue next the bill; the colour of the upper parts of the body has a greenish, and of the under parts a yellowish hue; the legs and feet are dusky or blackish blue. Both Dr Gmelin and Mr Latham suspect this of being the female of the preceding.

408

60. Zealandian Parrot.—52. *Psittacus zealandicus*. 83.

Is brownish-green; with a dark purple front, greenish tawny crown, and scarlet rump.

Pf. novae-zeelandiae. Syst. nat. ed. Gm. i. 328. n. 83.—Pf. zealandicus. Lath. ind. orn. i. 102. n. 58.—Red-rumped Parrot. Lath. fyn. i. 249. n. 50.

Inhabits New-zealand.—Is fifteen inches long; from the base of the bill a red streak extends through each orbit; the tail quills are bluish, the two middle ones having green edges; the bill is dark blue, with a black tip; a small number of the feathers on the crown are pale yellow, and on the middle of the back there are a few of a pale rusty brown colour; the temples are pale green; the belly is greenish ash; the primary wing quills are brown, with blue edges; the secondary wing quills, and the feathers of the bastard wing are dusky, with green edges, pale rusty tips, and chestnut shafts; the legs and feet are black.

409

61. Hollandian Parrot.—53. *Psittacus hollandicus*. 84.

Is olive-brown; with a yellow crest on the head, and an oblique white bar on the wings.

Pf.

Pf. novae-hollandiac. Syft. nat. ed. Gm. i. 328. n. 84. Lath. ind. orn. i. 102. n. 59.—Crested Parrakeet. Lath. syn. i. 250. n. 51.

Inhabits New-holland.—Is twelve inches long : The crest is composed of six slender feathers, two of which are almost three inches long, the rest being a good deal shorter ; behind each eye is a red spot ; the bill is pale ; the legs and feet are dusky : The body and head of the *female* are more on the tawny shade, the rump and tail having transverse grey streaks.

410

62. Wallesian Parrot.—*Psittacus wallicus.*

Is green ; the four middle tail quills are barred with green and black, and the rest with black and yellow.

Pf. formosus. Lath. ind. orn. i. 103. n. 60.

Inhabits New-south-wales.—This rare species is supposed by Mr Latham to be of the same size with the last : The wing coverts are green, with black and yellow bars ; the wing quills are black on the inner and green on the outer webs, having each two yellow spots on the middle, except on the three outermost, which have a single yellow spot on their inner webs, and all those spots are so arranged as to form an interrupted yellow bar across the wing ; the two middle tail quills measure nine, and the outer ones three, inches in length ; the four middle tail quills are green with above twenty narrow transverse black bars, and the rest are yellow with a good many black bars, the bars grow less perceptible towards the tips. This beautiful species is described by Mr. Latham from a mutilated specimen, which had only the wings and tail.

411

63. Society Parrot.—54. *Psittacus ulietinus.* 85.

Is olive-green ; with blackish brown crown, dusky red rump, and dusky tail and wings.

Pf. ulietinus. Lath. ind. orn. i. 103. n. 61.—Society Parrot. Lath. syn. i. 250. n. 52.

Inhabits Ulitea, one of the Society islands.—Is ten inches and a half long ; the bill is blackish blue, with a black tip ; the wing and tail quills have black edges ; the feathers on the under parts of the body have a yellowish tinge ; the legs and feet are black.

412

64. Many-coloured Parrot.—55. *Psittacus multicolor.* 86.

Is green ; the head, chin, and belly, being blue ; the fore part of the breast red, its hinder part and the under surface of the tail yellow, and the neck has a white collar.

Pf. femicollaris. Lath. ind. orn. i. 103. n. 62.—White-collared Parrot. Lath. syn. i. 251. n. 53. Penn. gen. of birds, 4to ed. 59. t. 2.

Inhabits the islands of the Indian ocean.—The size is not mentioned ; the bill is red ; the crown of the head is marked with a white crescent ; the thighs are variegated with blue and yellow.

413

65. Golden Parrot.—56. *Pf. aureus.* 87.

Is green ; with golden-yellow crown, the cere and orbits being carnation red.

Pf. brasiliensis. Lath. ind. orn. i. 103. n. 63. Ger. orn. ii. 19. t. 126.—*Psittaca brasiliensis*. Briss. orn. iv. 337. n. 61.—Perruche couronnée d'or. Buff. ois. vi. 271.—Golden-crowned Parakeet. Edw. glean. t. 235. Lath. syn. i. 251. n. 54.

Inhabits Brasil.—The bill is black; the irides are orange; the chin is mixed yellowish-green and red; the wing coverts are crossed by an oblique blue bar; the outer webs of the wing quills are blue; the legs and feet are reddish, with blackish claws.

414 66. Lineated Parrot.—57. *Psittacus lineatus*. 48.

Is green; the under surfaces of the wing quills are brown, and their inner webs are edged with pale brown.

Pf. lineatus. Lath. ind. orn. i. 104. n. 64.—Lineated Parrot. Lath. syn. i. 252. n. 55.

Its place uncertain.—Is about the size of a Turtle dove: The under parts of the body are yellowish green; the under surfaces of the wings are streaked with very narrow pale brown lines; the tail is longer than the body.

415 67. Pacific Parrot.—58. *Psittacus pacificus*. 88.

Is green, with a red front; having a red spot on each side behind the eyes, and on each side of the rump.

Pf. pacificus. Lath. ind. orn. i. 104. n. 65.—Pacific Parrot. Lath. syn. i. 252. n. 56.

Inhabits Otaheite and the other islands of the Pacific Ocean.—Is twelve inches long; the bill is silvery with a black tip; the legs and feet are brown, with black claws.

416 β. Zealand Pacific Parrot.—58. β. *Pf. pacificus seelandicus*.

The forehead is scarlet, and the wing quills are blue. Lath. ind. orn. i. 104. n. 65. β. Syn. i. 253. n. 56. A.

Inhabits New-zealand.—In this variety the rump has no red spots.

417 γ. Red-rumped Pacific Parrot.—58. γ. *Pf. pacificus erythropygius*.

The frontlet, temples, and rump, are red. Lath. ind. orn. i. 104. n. 65. γ. Syn. i. 253. n. 56. B.

Inhabits with the former:

418 δ. Caledonian Pacific Parrot.—58. δ. *Pf. pacificus caledonicus*.

The forehead is red, and the crown yellow. Lath. ind. orn. i. 104. n. 65. δ. Syn. i. 254. n. 56. C.

Inhabits New-Caledonia;

419

ε. Carlsonian Pacific Parrot.—*Pf. pacificus Carlsonianus*.

The hind head, a spot on each side below the eyes, and the sides of the belly, are scarlet.

Lath. ind. orn. i. 104. n. 65. ε.

Pittacus Novae-zealandiae. Mus. carlf. ii. t. 28.

Inhabits New-zealand.—The sides of the belly are spotted with scarlet; the under surfaces of the wings and tail are brown.

420

ζ. Phillipine Pacific Parrot.—*Pf. pacificus Phillipinus*.

The crown is blue; the hind head is spotted with yellowish green; the shoulders are edged with yellow.

Pf. australis. Lath. ind. orn. i. 104. n. 66.—Pacific Paroquet, or Parrakeet. Phillips, Bot. bay, t. p. 155.

Inhabits New-south-wales.—The bill is brown, tinged at the tip with red; the cap on the crown of the head is azure blue, interspersed at the back part with a few small yellowish green feathers; the shoulders, or upper and fore parts of the wings, are yellowish.

421

68. Palm Parrot.—59. *Pittacus palmarum*. 89.

Is green, with red bill, legs, and feet; the wing quills being edged and tipped with black.

Pf. palmarum. Lath. ind. orn. i. 105. n. 68.—Palm Parrot. Lath. syn. i. 253. n. 57.

Inhabits the island of Tanna in the Pacific Ocean.—This species, which frequents the palm trees, is eight inches long, and the tail is rather shorter than the body; the green colour on the lower parts of the body is paler than on the upper, and the belly and extremity of the tail have a yellowish tinge.

422

69. Blue-crested Parrot.—60. *Pittacus australis*. 90.

Is green; the crown being blue and ornamented with a crest of longish feathers; the chin and middle of the belly are red, and the thighs are purple.

Pf. pipilans. Lath. ind. orn. i. 105. n. 69.—Blue-crested Parrakeet. Lath. syn. i. 254. n. 58.—

Pf. porphyrocephalus, or Purple-headed Parrakeet. Nat. misc. N°. i. t. 1.

Inhabits the Sandwich Islands.—The body is about the size of a Lark, and, with the tail, measures six inches and a half long; it is very beautiful, and has a chirping voice: The bill is orange coloured; the fore-head pale green; the two middle tail quills are green, with yellow tips, the rest being yellowish with green edges and tips; the legs and feet are dusky, with black claws.—This species is subject to variety; in some the breast is brown; in others the cheeks, chin, throat, breast, and belly are tinged with scarlet, and in these the thighs are green. Lath.

423

70. Peregrine Parrot.—*Pittacus peregrinus*.

Is green; having a longitudinal brown spot on each wing. Lath. ind. orn. i. 105. n. 67.

Peregrine Parrakeet. Lath. syn. sup. 62.

Inhabits the islands of the Pacific Ocean.—Is eight inches long; the bill, legs, and feet are red.

424

71. Otaheite Parrot.—61. *Pf. taitianus*. 91.

Is blue; having longish feathers on the head; the chin and throat are white; the bill, legs, and feet, are red.

Pf. taitianus. Lath. ind. orn. i. 105. n. 70.—Arimanon. Buff. ois. vi. 175.—Petite Perruche de Taïti. Pl. enl. n. 455. f. 2.—Otaheitean blue Parrakeet. Lath. syn. i. 255. n. 59.—*Pf. porphyrio*, or Violet-blue Parrakeet. Nat. misc. N^o. iii. t. 7.

Inhabits Otaheite.—This small species is very noisy and unfettled, living chiefly on the fruits of the Banana or Musa trees; it measures very little more than five inches long, and the tail is rather shorter than the body: The tongue is fringed at the end, and in some individuals the whole under parts of the body are white.

425

72. Blue Parrot.—*Psittacus cyaneus*.

Is entirely of a splendid full blue colour. Lath. ind. orn. i. 105. n. 70. β. Mus. carlf. ii. t. 27.

Inhabits Otaheite.—Mr Latham is of opinion that this is only a variety of the preceding species.

426

73. Timid Parrot.—*Psittacus pusillus*.

Is olive-brown, with a scarlet frontlet; the tail quills being scarlet on their inner webs near the base. Lath. ind. orn. i. 106. n. 71.

Inhabits New-south-wales.—Is about the size of a Lark, and measures seven inches long: The bill is blackish, being circled at its base with scarlet feathers; the under parts of the body are paler than the upper; the tail is of the same olive brown colour with the body, all the quills, except the two middle ones, having the half next the rump of their inner webs scarlet; the legs and feet are blue.

427

74. Pygmy Parrot.—62. *Psittacus pygmaeus*. 92.

Is green, all the feathers being tipped with yellowish green; the inner webs of the wing quills are dusky.

Pf. pygmaeus. Lath. ind. orn. i. 106. n. 72.—Pygmy Parrakeet. Lath. syn. i. 256. n. 60.

Inhabits the islands of the Pacific ocean.—Is six inches long, the tail being rather shorter than the body: The bill is whitish, with a dusky cere; the legs and feet are leaden coloured.

428

75. Agile Parrot.—63. *Psittacus agilis*. 20.

Is green, having the coverts of the primary wing quills of a bluish tawny colour; the tail, which is scarcely elongated, is red underneath; the orbits are ash coloured.

Pf. agilis. Lath. ind. orn. i. 106. n. 73. Borowsk. nat. ii. 92. n. 10.—*Pf. cayenensis*. Briss. av.

iv. 237. n. 23.—Crik. Buff. oif. vi. 228.—Crik de Cayene. Pl. enl. n. 839.—Little green Parrot. Edw. av. iv. t. 168.—Agile Parrot. Lath. syn. i. 297. n. 101.

Inhabits South America.—Is ten inches and a half long; the bill, legs, and feet are ash coloured; the irides are chestnut; the inner webs and tips of the wing quill feathers are black; the two middle tail quills are green; the outer ones having three quarters of the length of the inner webs red; the tail is wedge-like, but not lengthened. In the Planches enluminées the cheeks of this species are coloured yellow.

429

76. Red-shouldered Parrot.—*Psittacus sanguinolentus*.

Is green, with a crimson frontlet; the crown and outer edge of the wings are deep blue; the shoulders and under surfaces of the wings are blood red.

Red-shouldered Parrakeet. Phillips, bot. bay. t. p. 269.

Inhabits New-south-wales.—Is ten inches and a half long: The general colour is green, inclining to yellow on the under parts of the body; the crown of the head, the outer edges of the wings, and some parts in the middle of the wings, are deep blue; the frontlet is crimson; the fore part of the neck is mixed with crimson; the fore part of the cheeks, between the bill and the eyes, is mixed with yellow; the shoulders and under surfaces of the wings are blood red; the primary wing quills are dusky, edged on their outer webs with yellow; two or three of the inner wing quills, and the ventlet or under surface of the rump, are pale red; the tail is long and wedge-like, its quill feathers near the rump are chestnut, growing dull blue towards the extremity; the bill, legs, and feet are brown.

** Having short tails, equal at the ends.

430

77. Crowned Cockatoo.—64. *Psittacus coronatus*. 21.

Is green; with a red folding crest which is tipped with blue.

Pf. coronatus. Lath. ind. orn. i. 106. n. 74.—Guiana Cockatoo. Bancr. guian. 160.—Crowned Cockatoo. Lath. syn. i. 259. n. 65.

Inhabits Guiana and Surinam.—Is eighteen inches long: The fore-head is yellow; the crest is scarlet, its tip being bright blue; the outer tail quills have blue outer webs; the feathers of the ventlet are red, with blue tips.

431

78. Black Cockatoo.—65. *Psittacus aterrimus*. 93.

Is black, with a large paler crest, and having naked red cheeks.

Pf. gigas. Lath. ind. orn. i. 107. n. 75.—Kakatoë's noir. Buff. oif. vi. 97.—Great black Cockatoo. Edw. glean. t. 316.—Black Cockatoo. Lath. syn. i. 260. n. 66.

Inhabits New-holland; Mr Latham says Ceylon.—This species equals or exceeds the Ara, N°. 327. in size: The bill is dusky brown; the legs and feet are brownish black.

432

79. Bankian Cockatoo.—*Psittacus Banksii*.

Is splendid black, with a small crest, the head and wing coverts being dotted with buff; the outer tail quills are scarlet in the middle, being barred, and tipped with black.

Lath. ind. orn. i. 107. n. 76.

Pf.

Pf. magnificus, or Magnificent Cockatoo. Nat. misc. N°. xvii. t. 50.—Bankian Cockatoo. Lath. syn. sup. 63. t. 109. Parkins. voy. 144. Cook, voy. ii. 18.

Inhabits New-holland.—Is almost equal in size to the former : The general colour is black ; the fore part of the crest, the cheeks, below the eyes, and the shoulders are spotted with buff, owing to the feathers being tipped with that colour ; in some specimens the sides and thighs are slightly barred with narrow buff streaks from the same cause ; the bill is very large, and of a deep brown colour ; the two middle feathers of the tail are black ; the outer tail quills are black at both ends, their intermediate space is scarlet with irregular black transverse bars, the inner edge of the scarlet, near the shafts, becomes yellow ; the legs and feet are deep brown. In some specimens the scarlet on the tail forms one large transverse band in the middle, without any black bars.

433

β. Yellow-necked Bankian Cockatoo.—*Pf. Bankii flavicollo*.

The sides of the neck, the chin, and throat, are yellow. Lath. ind. orn. i. 107. n. 76. β.

Inhabits with the former, but is greatly smaller, measuring twenty inches long, perhaps it is a younger bird : The tail is marked exactly as above described, with scarlet and black bars ; the bill is lead coloured ; the feathers of the crest are varied with yellow ; the chin and throat are yellow, and the sides of the neck are variegated with yellow and black.

434

γ. Brown Bankian Cockatoo.—*Pf. Bankii fuscus*.

Is dusky brown, inclining to olive ; the tail is crossed, except the two middle quills, with a broad red bar.

Variety of the Bankian Cockatoo. Phillips, bot. bay. t. p. 267.

Inhabits with the former, and measures twenty-two inches in length : The head, neck, and under parts of the body are dusky brown, inclining to olive, the belly being darkest ; the feathers on the top of the head, back part of the neck, upper part of the back, and the shoulders are edged with olive ; the rest of the back, the wings, and rump are glossy black ; the two middle tail quills are black ; the rest are black at both ends and vermilion red in the middle for about a third of their length, the outer edge of the two outmost feathers being black ; the bill is short, of a pale lead colour, and its under mandible is almost buried in the feathers of the crest ; the legs, feet, and claws are black. This variety may perhaps be a different sex of the one immediately preceding.

435

80. Yellow-crested Cockatoo.—66. *Psittacus sulphureus*. 94.

Is white, with a folding, pointed, sulphur-yellow crest, and having a sulphur-yellow spot below the eyes.

Pf. sulphureus. Lath. ind. orn. i. 109. n. 81.—*Pf. albus galeriatus*. Frisch. av. t. 50.—*Cacatua luteo-crenata*. Brisson. av. iv. 206. n. 9.—*Kakatoëha orientalis*. Seb. mus. i. 94. t. 59. f. 1.—*Kakatoës à hupe jaune*. Buff. ois. vi. 43. Pl. enl. n. 14.—Crested Parrot, or Cockatoo. Alb. av. iii. t. 12.—Lefler white Cockatoo. Edw. glean. t. 317. Lath. syn. i. 258. n. 64. Weir's mus.

Inhabits the Molucca islands.—Is fourteen inches and a half long : The bill and cere are blackish ; the

the irides are red ; the under parts of the body, the crest, and the half nearest the body of the inner webs of the tail quills have a tinge of sulphur yellow.

436

81. Walleian Cockatto. — *Pfittacus galeratus*.

Is white, with a long, folding, pointed, sulphur-yellow crest, and having the base of the tail sulphur-yellow. Lath. ind. orn. i. 109. n. 80.

Inhabits New-south-wales.—Is as large in the body as a common Dunghill cock, and measures two feet three inches long, including the tail : The bill is blackish ; the orbits are covered with feathers ; the crest rises from the fore-head, is seven inches long, being composed of ten or twelve sulphur yellow feathers, which are sharp at the ends ; behind this the crown of the head is bald ; the tail, which is eight inches long, is sulphur yellow at the base ; the legs and feet are blackish. This bird resembles the former in its general appearance, but is more than twice its size, and can therefore scarcely be considered as a mere variety. Lath.

437

82. Red-vented Cockatoo. — 67. *Pfittacus philippinarum*. 95.

Is white, having a folding sulphur-yellow crest which is tipped with white ; the orbits are yellowish red ; the under tail coverts are red, dotted with white.

Pf. philippinarum. Lath. ind. orn. i. 108. n. 79.—Cakatua minor. Briss. av. iv. 212. n. 11. t. 22. f. 1.—Petit Kakatoës. Buff. ois. vi. 96.—Petit Kakatoës des Philippines. Pl. enl. n. 191.—Red-vented Cockatoo. Brown, illustr. t. 5. Lath. syn. i. 258. n. 63.

Inhabits the Philippine islands.—Is thirteen inches and a half long : The bill is white, but is for the most part ash coloured at the base, with a grey cere ; the orbits are yellowish red ; the feathers of the crest are an inch and a half long, the lower feathers being sometimes pale red ; the two middle tail quills are white, the inner webs of the others being sulphur-yellow from the base to the middle ; the legs, feet, and claws are leaden coloured.

438

83. Molucca Cockatoo. — 68. *Pfittacus moluccensis*. 96.

Is pale whitish rose colour ; having a folding crest, which is red underneath.

Pf. rosaceus. Lath. ind. orn. i. 108. n. 78.—Cakatua rubro-crestat. Briss. av. iv. 209. n. 10.—Kakatoës à hupe rouge. Buff. ois. vi. 95. Pl. enl. n. 498.—Greater Cockatoo. Edw. av. iv. t. 160.—Great red-crested Cockatoo. Lath. syn. i. 257. n. 62.

Inhabits the Molucca islands.—This species measures a little more than seventeen inches long : The bill is bluish black, with a black cere ; the orbits are grey ; the irides are red ; the general colour is white inclining to pale rosy red ; the lateral tail quills have their inner webs, from the base to the middle, of a sulphur-yellow colour ; the crest is six inches and a half long ; the legs and feet are lead coloured, with black claws.

439

84. Yellow-crested Cockatoo. — 69. *Pfittacus cristatus*. 22.

Is white, with a folding yellow crest.

Pf. cristatus. Lath. ind. orn. i. 108. n. 77.—*Pf. albus cristatus*. Aldr. orn. l. 11. c. 4. Raj. av. 30. n. 1.—*Cacatua*. Briff. av. iv. 204. n. 8. t. 21.—*Kakatoës à hupe blanche*. Buff. ois. vi. 92.—*Kakatoës des Moluques*. Pl. enl. n. 263.—*White crested Parrot*. Alb. av. iii. t. 12. Will. orn. angl. 112. t. 15.

Inhabits the Molucca islands.—Is eighteen inches long : The bill, cere, irides, legs, feet, and claws are black ; the orbits are white and naked ; the wing quills and lateral tail quills are sulphur-yellow on their inner webs from the base to the middle ; the feathers of the scrag of the neck are loose and flowing ; the crest is five inches long, and is capable of being erected or laid down at pleasure, in which last state it covers the crown of the head, otherwise bald or naked, with a double range of feathers, the upper row lying immediately over the intervals of the lower ; this crest is erected either when angry, frightened, pleased, or otherwise roused.

440

85. Red-winged Cockatoo.—70. *Psittacus erythroleucus*. 23.

Is ash coloured ; the rump, wings, and tail, being scarlet.

Pf. erythroleucus. Aldr. orn. i. 675. Raj. av. 31. n. 7. Lath. ind. orn. i. 109. n. 82.—*Cacatua rubro-cauda*. Briff. av. iv. 214. n. 12.—*Kakatoës à ailes et queue rouges*. Buff. ois. vi. 96.—*Red-and-white Parrot*. Will. orn. angl. 114. n. 8. Lath. syn. i. 260. n. 67.

Its place uncertain.—Is about the size of a common Hen, and measures seventeen inches long : This species is here named Cockatoo, notwithstanding that its having a crest is omitted both by Dr Gmelin and Mr Latham, but as that particular appellation is given to it both by Mr Briffon and the Count de Buffon, it can scarcely be doubted that it is furnished with the appendage which chiefly distinguishes Cockatoos from Parrots. The bill is black ; the under part of the back is red ; the wing quills, and those of the tail, with the rump, are scarlet ; the legs and feet are blackish, with black claws.

441

86. Hoary Parrot.—71. *Psittacus erythacus*. 24.

Of a hoary ash colour, with naked white temples, and scarlet tail.

Pf. erythacus. Mus. ad frid. i. 14. Scop. an. i. 31. n. 30. Kram. el. 332. n. 2. Lath. ind. orn. i. 109. n. 83.—*Pf. guineensis cinereus*. Briff. av. iv. 310. n. 49.—*Pf. cinereus*, f. *subcaeruleus*. Aldr. orn. i. 675. t. p. 676. Raj. av. 31. n. 8.—*Jaco*, *Perroquet cendré*. Buff. ois. vi. 100. Pl. enl. n. 311.—*Ash-coloured Parrot*. Will. orn. angl. 114. n. 7. Alb. av. i. t. 12. Lath. syn. i. 261. n. 68.—*Grauer Papagay*. Frisch, av. t. 51.

442

β . Red-winged Hoary Parrot.—71. β . *Ps. erythacus erythropterus*.

Has red wings. Lath. ind. orn. i. 110. n. 83. β . Briff. av. iv. 313. n. 49. A.

Red-winged ash-coloured Parrot. Lath. syn. i. 262. n. 68. A.

This variety differs from the former in having the wings very considerably marked with red.

443

γ . Red-spotted Hoary Parrot.—71. γ . *Ps. erythacus rubro varius*.

Is variegated with red on the body and wings. Briff. av. iv. 313. n. 49. B. Lath. ind. orn. i. 110. n. 83. γ .

Red-

Red-and-ash coloured Parrot. Edw. av. iv. t. 163. Lath. syn. i. 262. n. 68. b.

The whole body, and the upper surfaces of the wings, in this variety, are variegated with red and ash colour.

Inhabits the western coast of Africa.—Is twenty inches long: This species is remarkably loquacious and noisy, modulating its voice with great flexibility, and learns easily to repeat almost every thing it hears. The bill is black, with a white cere; the irides are yellowish white; the legs and feet are ash coloured, with blackish claws.

444

87. Ash-headed Parrot.—*Psittacus cinereocephalus*.

Is red, with an ash coloured head, naked cheeks, and brown ash primary wing quills.

Syst. nat. ed. Gm. i. 332. n. 24. d. Lath. ind. orn. i. 110. n. 83. d.

Pf. ruber. Scop. an. i. 32. n. 31. Lath. syn. i. 262. n. 68. c.

Inhabits with the former.—Though this bird be reckoned a variety of the Hoary Parrot both by Dr Gmelin and Mr Latham, it is here separated, perhaps improperly, on account of the remarkable difference in the prevailing colour: The bill, cere, irides, legs, feet, and claws, agree with the description of these in the Hoary Parrot; on the breast there are two brown feathers.

445

88. Cinereous Parrot.—72. *Psittacus cinereus*. 97.

Is entirely of a bluish ash colour.

Pf. cinereus. Lath. ind. orn. i. 110. n. 84.—Pf. brasiliensis cinereus. Briss. av. iv. 313. n. 50.—Maracana. Will. orn. ang. 112. n. 5. Raj. av. 29. n. 4.—Cinereous Parrot. Lath. syn. i. 263. n. 69.

Inhabits Guinea.—This species exceeds the Hoary Parrot in size.

446

89. Southern Parrot.—73. *Psittacus meridionalis*. 98.

Is brown, with a hoary head; the under parts of the neck are chestnut; the rump and ventlet being brown red.

Pf. Nestor. Lath. ind. orn. i. 110. n. 85.—Southern brown Parrot. Lath. syn. i. 264. n. 70.

Inhabits New-zealand.—Is sixteen inches long; the bill is large, much hooked, and blackish; the shafts of the tail quills are naked and slender at the tips; the legs and feet are blackish.

This description, which is taken from Mr Latham, because the species is adopted into the Systema Naturae from his Synopsis, differs very materially from the one given by Dr Gmelin, which is as follows: The upper parts of the body are greenish ash; the under parts are bright bay; the orbits, crown of the head, hind head, and scrag of the neck, are ash coloured, the feathers on these parts being tipped with brown; the bill is bluish black; the legs and feet are black.

447

90. Mascarine Parrot.—74. *Psittacus mascarinus*. 49.

Of an ash colour; the lower edge of the frontlet being black; the orbits are naked and ruddy, and the lateral tail quills whitish at their bases.

Pf. mafcarinus. Mantiss. 1771. p. 524. Briss. av. iv. 315. n. 52. Lath. ind. orn. i. 111. n. 87.—*Mafcarin*. Buff. ois. vi. 120. t. 5. Pl. enl. n. 35.—*Mafcarine Parrot*. Lath. syn. i. 265. n. 72.

Inhabits *Mafcarin* in Barbary.—Is thirteen inches and a half long : The bill, cere, legs, and feet, are ruddy ; the claws are grey ; the crown of the head and scrag of the neck are reddish : Mr Latham says that the prevailing colour is brown, the face black, the head bluish, and the tail quills dark ash coloured.

448

91. Brown Parrot.—75. *Pfittacus fuscus*. 99.

Is entirely of a brown ash colour.

Pf. fuscus. Briss. av. iv. 314. n. 51. Lath. ind. orn. i. 111. n. 88.—*Brown Parrot*. Lath. syn. i. 266. n. 73.

Its habitation is uncertain.—This species measures thirteen inches and a half long.

449

92. Ceram Parrot.—76. *Pfittacus garrulus*. 25.

Is scarlet, with ash coloured orbits, and green knees and wings, the extreme half of the tail being blue.

Pf. garrulus. Mus. ad. frid. ii. 14. It. W. goth. 137. Borowsk. nat. ii. 91. n. 6. Lath. ind. orn. 113. n. 96.—*Lorius ceramensis*. Briss. av. iv. 215. n. 13.—*Lori de Ceram*. Buff. ois. vi. 129. var. 2.—*Ganz rother Papagay*. Frisch, av. t. 45.—*Lory*. Raj. av. 151. n. 5.—*Purple Parrot*. Charlet, exerc. 75. n. 16.—*Scarlet Parrakeeto*. Will. orn. ang. 117.—*Ceram Lory*. Lath. syn. i. 269. n. 76.

Inhabits the *Molucca* islands.—Is a little more than ten inches long : The bill is orange, with an ash coloured cere ; the irides are yellow ; the legs and feet are brown, with black claws ; the wing coverts are variegated with yellow and green ; the primary wing quills are dusky green, having their inner webs scarlet, and their tips ash coloured ; the two middle tail quills are green at the base, and red for the rest of their length with green dots ; the next quill on each side is red for two-thirds of its length and then green ; the rest are scarlet at the base, and violet farther on, with dusky green dots.

450

β. Noira Ceram Parrot.—76. β. *Pf. garrulus aurorae*.

Is scarlet, with black and green wings, the first half of the tail being yellow, and the extreme half green. Syst. nat. ed. x. n. 22. Lath. ind. orn. i. 113. n. 96. β.

Pf. coccineus orientalis. Raj. av. 31. n. 9.—*Lori-Noira varieté*. Buff. ois. vi. 129. var. 1.—*Pappagallo*. Zinnan. uov. 92. t. 15. f. 82.—*Noira Lory*. Lath. syn. i. 270. n. 76. α.

Inhabits with the former, and is of the same size.—The legs and feet in this variety are black ; the wing coverts are green, without variegation ; the tips of the wing quills are black, and in other respects resemble those of the former already described ; the tail at its base resembles the former, but its extreme half is yellow, with a yellowish green tip.

451

γ. Scarlet Ceram Parrot.—76. γ. *Pf. garrulus moluccensis*.

Is scarlet, the shoulders being spotted with yellow. Briss. av. iv. 219. n. 14. t. 23. f. 1. Lath. ind. orn. i. 114. n. 96. γ.

Pf. moluccensis. Ger. orn. i. 94. t. 106. Borowsk. nat. ii. 91. n. 7.—*Lori noira*. Buff. ois. vi. 127.—*Lori des Moluques*. Pl. enl. n. 216.—*Scarlet Lory*. Lath. syn. i. 270. n. 76. B. Edw. av. iv. t. 172.

Inhabits with the former, and is of the same size.—In this variety the wing coverts are first yellow, then green, and still lower green with yellow dots; the lower surface of the tail is reddish yellow; in other respects it agrees with the first described variety.

452

♂. Spotted Ceram Parrot.—76. *Pf. garrulus maculatus*.

The wing coverts are marked with a number of blue spots. Lath. ind. orn. i. 114. n. 96. ♂. Syn. 271. n. 76. ♂.

Inhabits with the former, and is of the same size.—It chiefly differs from the variety first described in having the wing coverts much spotted with blue, and by wanting the green bracelets at the knees.

453

93. Blue-capped Parrot.—77. *Pfittacus Domicella*. 26.

Is red, with a violet blue cap, and green wings; the shoulders and knees are blue, and the orbits brown.

Pf. Domicella. Lath. ind. orn. i. 114. n. 97.—*Lorius orientalis indicus*. Briff. av. iv. 22. n. 15. t. 24. f. 1.—*Lori à collier*. Buff. ois. vi. 130.—*Lori des indes orientales*. Pl. enl. n. 84.—*Second black-cap Lory*. Edw. av. iv. t. 171.—*Purple-capped Lory*. Lath. syn. i. 271. n. 77.

Inhabits New-guinea and the Molucca islands.—This species is almost eleven inches long; is very docile, and learns to speak very plainly: The bill is red, with an ash coloured cere; the irides are yellow; the breast is marked with a yellow femilunar spot; the legs and feet are blackish, with black claws.

454

β. Collared Blue-capped Parrot.—77. β. *Pf. Domicella torquatus*.

Is red, with a blue cap, and blue wings; the orbits are ash coloured; the neck is surrounded with a yellow collar. Lath. ind. orn. i. 114. n. 97. β.

Lorius torquatus indicus. Briff. av. iv. 130. n. 18.—*Lori à collier des indes*. Buff. ois. vi. 131.—*Lori male des indes orientales*. Pl. enl. n. 119.—*Laurey from Brasil*. Alb. av. iii. t. 13.—*Blue-capped Lory*. Lath. syn. i. 271. n. 77. A.

Inhabits with the former, and is of the same size.—The bill is yellowish, with an ash coloured cere; the irides are yellow; the neck is surrounded, at its lower end, with a yellow collar; the back, rump, and belly, are mixed white and rose colour; the tail is purple, its coverts being varied with red and white; the primary wing quills are blue; the secondaries and coverts are yellowish green; the legs and feet are blackish, with black claws. The editor of the Planches Enluminées considers this variety as the male, and the former as female of the same species.

455

94. Violet-capped Parrot.—78. *Pfittacus Lory*. 27.

Is purplish scarlet, with a dark violet-blue cap, and green wings; the breast, knees, and tail, are blue, and the orbits are flesh coloured.

Pf. Lory. Lath. ind. orn. i. 115. n. 98. Borowsk. nat. ii. 92. n. 9.—*Lorius philippenfis*. Briff. av. iv. 225. n. 16. t. 23. f. 2.—*Lori tricolor*. Buff. ois. vi. 132.—*Lori des Philippines*. Pl. enl. n. 168.—First black-cap Lory. Edw. av. iv. t. 170.—Black-capped Lory. Lath. syn. i. 273. n. 78.

Inhabits the island of Ylo, and the other Philippines.—Is almost eleven inches long: The bill is orange, with an ash coloured cere; the irides are orange; the tail quills are partly red, and partly green, the outer quills being edged at the ends with violet blue; the legs and feet are blackish.

456

95. Crimfon Parrot.—79. *Psittacus puniceus*. 100.

Is deep scarlet or crimfon above, and violet-blue beneath; the lesser and under wing coverts, the inner webs and under surfaces of the wing quills, are blackish brown.

Pf. puniceus. Lath. ind. orn. i. 115. n. 99.—*Lorius amboinenfis*. Briff. av. iv. 231. n. 19.—*Lori cramoisi*. Buff. ois. vi. 133.—*Lori d'Amboina*. Pl. enl. n. 518.—Blue-breasted Parrot. Brown, illustr. t. 6.—Crimfon Lory. Lath. syn. i. 273. n. 79.

457

96. Red Parrot.—80. *Psittacus ruber*. 101.

Is red, having black wing quills and orbits; the under tail coverts being blue, the wings marked with a blue spot, and the tail tipt with chefnut.

Pf. ruber. Lath. ind. orn. i. 115. n. 100.—*Lori rouge*. Buff. ois. vi. 134.—*Lori de la Chine*. Pl. enl. n. 519.—*Lori de Gilolo*. Sonner. voy. 177. t. 112.—*Molucca Lory*. Lath. syn. i. 274. n. 80.

Inhabits the Molucca islands and New-guinea.—Is from nine to ten inches long: The bill and irides are yellow. In the individual described by Sonnerat the tail is equal and tipt with chefnut colour, as mentioned above; but in the individual delineated in the Pl. enl. n. 519. the tail is wedge-like and of an uniform colour, giving this species a considerable resemblance to the Gueby Parrot, N°. 358. *Lath.*

458

β. Molucca Red Parrot.—80. β. *Ps. ruber moluccensis*.

Is red; the shoulders, belly, ventlet, tips of the secondary wing quills, and tips of the larger wing coverts, being blue.

Pf. moluccensis. Lath. ind. orn. i. 116. n. 101.—*Molucca Lory*. Lath. syn. i. 274. n. 80. A.

Inhabits with the former, of which it is considered as a variety only by Dr Gmelin, while Mr Latham thinks it is sufficiently distinct from it to constitute a separate species: It measures nine inches in length; the bill is red, with a bluish cere; the orbits are bluish; the tail is dusky red, its quills having dusky edges.

459

97. Grand Parrot.—81. *Psittacus grandis*. 102.

Is red, the under parts being variegated with red, blue, violet, and green; the nape is violet; the wings are blue; and the tail is yellow at the tip.

Pf. grandis. Lath. ind. orn. i. 116. n. 102.—*Grand Lori*. Buff. ois. vi. 135.—*Lori de la nouvelle Guinée*. Pl. enl. n. 683.—*Purpur-roode Loeri*. Voefm. monogr. 1769. p. 10. t. 7.—*Grand Lory*. Lath. syn. i. 275. n. 81.

Inhabits

Inhabits New-guinea.—Is thirteen inches long : The bill is black ; the back and wing coverts are brownish red ; the head and neck are scarlet, the back part of the latter from the nape to the origin of the back being blue.

460 β . Blue-bellied Grand Parrot.—81. β . *Pf. grandis porphyrogaster*.

Is red, the upper parts of the body being variegated with brown, green, and blue ; the under parts of the body, the edge of the wings, and their under coverts, are blue.
Lath. ind. orn. i. 116. n. 102. β .

Grand Lory. Lath. syn. i. 276. n. 81. A.

Inhabits with the former, and is of the same size.—The thighs and tail are chestnut coloured.

461 98. Cochinchina Parrot.—*Psittacus cochinchinensis*.

Is blue ; the front, nape, lower part of the neck, breast, and middle of the belly, being scarlet. Lath. ind. orn. i. 116. n. 103. Syn. sup. 65. n. 143.

Inhabits Cochinchina.—The size of this species is not mentioned : The bill is yellow ; the wing coverts, the wing quills, and the tail, are all marked with a black cross bar ; the legs and feet are black.

462 99. Guinea Parrot.—82. *Psittacus guineensis*. 103.

The head and neck are scarlet ; the eyebrows and breast are yellowish ; the wings are greenish yellow, with blue tips ; the belly, rump, and under surface of the tail, are hoary.

Pf. guineensis. Lath. ind. orn. i. 116. n. 104. Miller, illustr. t. 29.—Yellow-breasted Lory. Lath. syn. i. 276. n. 82.

Inhabits Guinea.—Is ten inches long : The bill is black, with a white cere ; the chin and orbits are white ; the tail is tipped with scarlet ; the claws are black.

463 100. Paraguayan Parrot.—83. *Psittacus paraguayanus*. 104.

Is scarlet ; the head, scrag, ventlet, tail, shoulders, and wings, being black.

Pf. paraguayanus. Lath. ind. orn. i. 117. n. 105.—*Lorius brasiliensis*. Briss. av. iv. 229. n. 17.—Paragua. Raj. av. 33. n. 4. Will. orn. ang. 115. n. 9. Buff. ois. vi. 248.—Paraguan Lory. Lath. syn. i. 277. n. 83.

Inhabits Brasil ?—The bill is ash coloured, and the irides are red.

464 101. Black Parrot.—84. *Psittacus niger*. 29.

Is bluish black, with whitish bill and orbits.

Pf. niger. Lath. ind. orn. i. 111. n. 86. Klein, av. 25. n. 23. Ger. orn. ii. 20. t. 128.—*Pf. madagascariensis niger*. Briss. av. iv. 317. n. 53.—Vasa, Perroquet noir. Buff. ois. vi. 119. t. 4.—Perroquet noir de Madagascar. Pl. enl. n. 500.—Black Madagascar Parrot. Edw. av. i. t. 5.—Black Parrot. Lath. syn. i. 264. n. 71.

Inhabits

Inhabits Madagascar.—Is thirteen inches and a half long: The bill is ruddy; the irides are brown; the tail is considerably elongated, but is equal at the end; the legs and feet are flesh coloured, with black claws.

465 102. Blue-headed Parrot.—85. *Psittacus caeruleocephalus*. 28.

Is blue, with a yellow crown; the belly, rump, and tail coverts, being green, and the wing and tail quills red.

Pf. caeruleocephalus. Lath. ind. orn. i. 117. n. 106.—*Pf. gujanensis caeruleus*. Briss. av. iv. 304. n. 46.—*Pf. versicolor*, f. *erythrocanus*. Aldr. orn. i. 675. Raj. av. 31. n. 6.—*Crik rouge-et-bleu*. Buff. ois. vi. 226.—Red-and-blue Parrot. Will. orn. angl. 114. n. 6. Lath. syn. i. 277. n. 84.

Inhabits Guiana.—Is nine inches long: The bill is blackish; the orbits are naked and white; the irides are yellow; the legs and feet are grey.

466 103. Variegated Parrot.—86. *Psittacus varius*. 105.

Is variegated with brown and blue; the cheeks, chin, and throat, being whitish; the wing and tail quills are dusky brown, with blue outer webs.

Pf. varius. Lath. ind. orn. i. 112. n. 90. Maerter, phys. arb. i. 2. p. 48.

Inhabits South America.—This species scarcely exceeds five inches in length: The bill, legs, and feet, are yellowish, with black claws.

467 104. Violet Parrot.—87. *Psittacus violaceus*. 106.

Is violet-blue, varied with green and red; the back is mixed green and brown; the primary wing quills are black, and the rest mixed yellow, green, and red; the coverts having a rose coloured spot.

Pf. violaceus. Lath. ind. orn. i. 112. n. 91.—*Pf. aquarium lupiarum*. Briss. av. iv. 302. n. 44.—*Crik à tete violette*. Buff. ois. vi. 233.—*Perroquet de Guadeloupe*. Du Tertre, antill. ii. 250. f. p. 246.—Ruff-necked Parrot. Lath. syn. i. 268. n. 75.

Inhabits America.—Is about the size of a common Hen: The bill and orbits are flesh coloured; when irritated, the feathers round the neck are erected like a ruff or collar; the rosy spot on the wing coverts is double, or is rather two contiguous spots. The description of this species by Mr Latham is somewhat different, as follows: The upper parts of the body are green, and the under parts bluish; the head and neck are violet-blue, varied with green and black.

468 105. Finch Parrot.—88. *Psittacus fringillaceus*. 107.

Is green, with a blue head; the cheeks, chin, throat, and a spot on the belly, being white, smeared bloody; the belly is violet-blue.

Pf. fringillaceus. Lath. ind. orn. i. 112. n. 92. Maerter, phys. arb. i. 2. p. 47.

Inhabits South America.—The body of this species is not larger than that of a Sparrow, and, with the tail, measures six inches in length: The bill, legs, and feet, are pale yellow, with brownish claws; the inner webs and tips of the tail quills are pale yellow.

469 106. Molinas Parrot.—89. *Psittacus choraenus*. 108.

Is green above, and ash coloured beneath, with flesh coloured orbits. Molina, hist. nat. chil. 228. Lath. ind. orn. i. 112. n. 93.

Inhabits Chili.—This species agrees in manners and food with the Jaguilma, No. 385. already described.

470 107. Chinese Parrot.—90. *Psittacus sinensis*. 109.

Is green; the sides under the wings, the under wing coverts, some of the larger wing coverts, and the margin of the wings, being red; the under surface of the tail is brown.

Pf. sinensis. Briss. av. iv. 291. n. 39. Lath. ind. orn. i. 117. n. 107.—Perroquet vert. Buff. ois. vi. 116.—Grand Perroquet vert. Sonner. voy. 174. t. 108.—Perroquet de la Chine. Pl. enl. n. 514.—Green-and-red Chinese Parrot. Edw. glean. t. 231. Lath. syn. i. 278. n. 85.

Inhabits China, Amboina, and New-guinea.—Is of the size of a common Hen: The bill is red above, with a yellowish tip, and black underneath, with no cere; the orbits are clothed with plumage; the irides are orange; the legs, feet, and claws, are black.

471 108. Great-billed Parrot.—91. *Psittacus macrorhynchos*. 110.

Is green above, and greenish yellow underneath; the wings being varied with blue and green, and having black coverts edged with golden yellow.

Pf. macrorhynchos. Lath. ind. orn. i. 117. n. 108.—Perroquet à bec-de-sang. Buff. ois. vi. 122.—Perroquet de la nouvelle Guinée. Pl. enl. n. 713.—Great-billed Parrot. Lath. syn. i. 278. n. 86.

Inhabits New-guinea.—Is fourteen inches long: The bill is very large, and of a blood-red colour; the back is bluish green; the fore part of the breast is greenish yellow; the tail is yellowish at the tip; the legs and feet are black.

472 109. Grilled Parrot.—*Psittacus natus*.

Is green; the head and breast being greenish grey, and the wing coverts yellow. Lath. ind. orn. i. 118. n. 109. Syn. sup. 64. n. 141.

Grand Perruche de la Chine. Sonner. voy. ii. 212.

Inhabits China.—Is about twelve inches long: The bill is red, and almost equals the head in size; the irides are bluish.

473 110. Grassy Parrot.—92. *Psittacus gramineus*. 111.

Is grass-green above, and olive-green underneath; having the front and crown blue, and the under surface of the tail dusky yellow.

Pf. gramineus. Lath. ind. orn. i. 118. n. 110.—Grande Perruche à tête bleue. Buff. ois. vi. 122.—Perroquet d'Amboine. Pl. enl. n. 862.—Amboina Parrot. Lath. syn. i. 279. n. 87.

Inhabits

Inhabits Amboina.—Is sixteen inches long : The bill is pale red ; the face on each side is marked with a black line from the nostrils to the eyes ; the legs and feet are lead coloured.

474 111. White-headed Parrot.—93. *Pfittacus leucocephalus*. 30.

Is green ; with blue crown, cheeks, and wing quills ; having a white front, white orbits, and red chin.

Pf. leucocephalus. Lath. ind. orn. i. 118. n. 111.—*Pf. martinicanus*. Briff. av. iv. 242. n. 26.—*Amazone à tete blanche*. Buff. ois. vi. 212. t. 9.—*Perroquet à front blanc du Senegal*. Pl. enl. n. 335.—*White-headed Parrot*. Edw. av. iv. t. 166.—*White-fronted Parrot*. Lath. syn. i. 279. n. 88.

Inhabits Martinico.—Is about the size of a small Pigeon : The plumage is green, all the feathers having brown or red edges ; the crown and sides of the head are blue ; the bill is red ; the chin is red ; the wing quills are black, their outer webs being blue ; the tail quills are green, being red at the base and yellowish at the tips, the two outermost have blue outer webs, and the sixth on each side is entirely green ; the hinder part of the belly is generally rusty.

475 β. Purple-bellied White-headed Parrot.—93. β. *Pf. leucocephalus purpuratus*.

Is green, with a white front ; the throat is reddish, its feathers being edged with white ; the belly is purple ; the outer webs of the wing quills are blue. Lath. ind. orn. i. 118. n. 111. β.

Pf. leucocephalus. Aldr. orn. i. 670. Raj. av. 31. n. 5. and 181. n. 7.—*Pf. martinicanus rubroguttare*. Briff. av. iv. 244. n. 27.—*Amazone à tete blanche*. Buff. ois. vi. 212. var.—*Perroquet de la Martinique*. Pl. enl. n. 549.—*White-headed Parrot*. Will. orn. angl. 113. n. 5. Lath. syn. i. 280. n. 88. A.

Inhabits Martinico, Jamaica, and New-spain.—Resembles the former in size and general colours, except as above noticed in the character, and that the hind head is green.

476 γ. Green-chinned White-headed Parrot.—93. γ. *Pf. leucocephalus albifrons*.

Is green, with a white front, and green chin ; the crown and wing quills being blue ; the orbits and bastard wings are red.

Pf. albifrons. Lath. ind. orn. i. 119. n. 113. Mus. carif. iii. t. 52.—*White-crowned Parrot*. Latli. syn. i. 281. n. 88. B.

Inhabits with the former, and is of the same size.—The green plumage on the neck, back, and breast has all the feathers rounded at the ends and tipped with black ; the tail is green, the bases of the quills being tinged with blood-red ; the legs and feet are ash coloured.

477 δ. Ashy White-headed Parrot.—93. δ. *Pf. leucocephalus cinerescens*.

Is green, with a white front and bluish ash coloured crown ; the belly being spotted with red. Lath. ind. orn. i. 119. n. 111. γ.

Pf. martinicanus cyanocephalus. Briff. av. iv. 251. n. 29.—*Pagagai à ventre pourpre*. Buff. ois. vi. 242. Pl. enl. n. 548.—*Ash-crowned Parrot*. Lath. syn. i. 281. n. 88. c.

Inhabits

Inhabits with the former, and is of the same size: The plumage in this variety, like the last, is tipped with black, and the chin or throat is green.

478

112. Gerins Parrot.—*Psittacus Gerini*.

Is green, with a white head; the shoulders, some of the middle wing quills, and the inner webs of the tail quills, at the base, are red. Lath. ind. orn. i. 119. n. 112. Ger. orn. i. 95. t. 109.

Inhabits Brasil.—Is much of the same size with the several varieties of the preceding species, of which it might very properly be considered as a variety: The bill, legs, and feet are pale; the head is almost entirely white; the whole body is green; the lesser wing coverts, some of the wing quills in the middle of the wing, and all the tail quills on their inner webs near the base are red.

479

113. Yellow-headed Parrot.—94. *Psittacus ochrocephalus*. 112.

Is green, with a yellow crown; the wing coverts are red; the wing quills are variegated with green, black, violet, and red; the two outer tail quills are red on their inner webs near the base.

Pf. amazonicus. Lath. ind. orn. i. 119. n. 114.—Pf. amazonicus brasiliensis. Briff. av. iv. 272. n. 35. t. 26. f. 1.—Amazone à tête jaune. Buff. oif. vi. 208.—Yellow-headed Amazons Parrot. Lath. syn. i. 282. n. 89.

Inhabits South America, and the West India islands.—Is near eighteen inches long; the bill is ash coloured, with a red base; the irides are yellow; the legs and feet are leaden coloured, with black claws.

480

β. Cayenne yellow-headed Parrot.—94. β. *Pf. ochrocephalus cayenensis*.

Has only a yellow spot on the crown. Lath. ind. orn. i. 120. n. 114. β.

Amazone à tête jaune. Buff. oif. vi. 209. var. 1.—Perroquet vert-et-rouge de Cayenne. Pl. enl. n. 312.—Yellow-crowned Parrot. Lath. syn. i. 282. n. 89. A.

Inhabits with the former, and is of the same size: The bill is reddish, but in all other circumstances it agrees with the former variety, except that in this the crown is only marked with a yellow spot, while in the former the whole crown is yellow.

481

γ. Greater yellow-crowned Parrot.—94. γ. *Pf. ochrocephalus major*.

The upper mandible of the bill is bluish green, with yellow sides and white tip; the under mandible being lead coloured, and yellow in the middle. Lath. ind. orn. i. 120. n. 114. γ.

Pf. poikilorhynchus. Raj. av. 30. n. 3. Briff. av. iv. 270. n. 34.—Amazone à tête jaune. Buff. oif. vi. 210. var. 2.—Party-billed Parrot. Will. orn. angl. 113. Lath. syn. i. 283. n. 89. B.

Inhabits with the two former, which it resembles in every respect, especially the first, except in being considerably larger, and in the variegation of the bill.

482

114. Barbadoes Parrot.—95. *Psittacus barbadensis*. 113.

Is green, with ash coloured front and orbits; the crown, cheeks, chin, throat, lesser wing coverts, and thighs, being yellow; the greater coverts are blue; most of the primary wing quills have blue outer webs; the rest are red from the base to the middle, and blue from thence to the end.

Pf. barbadensis. Briff. av. iv. 236. n. 22. Lath. ind. orn. i. 120. n. 115.—Green-and-yellow Barbadoes Parrot. Albin, av. iii. t. 2.—Ash-fronted Parrot. Lath. syn. i. 284. n. 90.

Inhabits Barbadoes.—Is about the size of a pigeon: The bill is horn coloured; the legs and feet are ash coloured, with black claws.

483

115. Manilla Parrot.—96. *Psittacus lucionensis*. 31.

Is green, with blue hind head and rump; the wings being black, and marked with blue and red.

Pf. lucionensis. Briff. av. iv. 295. n. 41. t. 22. f. 2. Lath. ind. orn. i. 120. n. 116.—Manilla green Parrot. Lath. syn. i. 296. n. 98.

Inhabits the Philippine islands.—Is about the size of a pigeon, measuring twelve inches and a half long: The bill is scarlet, with a white tip and reddish cere; the legs and feet are ash coloured, with blackish claws.

484

116. Ajuru Parrot.—97. *Psittacus aëstivus*. 32.

Is green, slightly spotted with yellow; having a blue front, blood-red shoulders, and flesh coloured orbits.

Pf. aëstivus. Lath. ind. orn. i. 121. n. 117.—Pf. amazonicus. Briff. av. iv. 256. n. 31. Klein, av. 25. n. 10. Frisch, av. t. 47.—Ajuru-curau. Marcgr. bras. 205. Raj. av. 32. n. 1.—Aourou-couraou. Buff. ois. vi. 215.—Perroquet Amazone. Pl. enl. n. 547.—Middle-sized Parrot. Will. orn. angl. 115.—Common Amazons Parrot. Lath. syn. i. 284. n. 91.

Inhabits Amazonia, Guiana, and Brasil.—Is twelve inches long, the body being about the size of a pigeon: The back has a number of tawny yellow feathers scattered through its green plumage; the face is yellow, with a blue fore-head and white crown; the tail quills are green, the tips being paler; the first, second, and third, on each side, are red on their inner webs near the base, the outer web of the first being blue; the shoulders are either tawny or blood-red; the primary wing quills are black, with bluish tips, the outer webs being green, and the inner webs black; the first four or five of the secondaries have their outer webs red near the base; the bill is black at the tip. This description applies to the following varieties, except as is otherwise expressed to each, as far as inclusively; the varieties after that are more particularly described.

485

β. Jamaica Ajuru Parrot.—97. β. *Pf. aëstivus jamaicensis*.

The head and breast are yellow; the front and chin are bluish; the edges of the wings and the ventlet are red. Lath. ind. orn. i. 121. n. 117. β.

Pf. jamaicensis icterocephalos. Briff. av. iv. 233. n. 20.—Pf. viridis melanorhynchos. Aldr. orn.

l. ii. c. 7. Raj. av. 30. n. 4.—Aourou-couraou. Buff. oif. vi. 216. var. 1.—Black-billed green Parrot. Will. orn. angl. 113. n. 4.—Jamaica Parrot. Brown, jam. 473. Lath. syn. i. 285. n. 91. A.

Inhabits Jamaica.

486

γ. Main Ajuru Parrot.—97. γ. *Pf. aestivus guianensis*.

The lesser wing coverts are red. Lath. ind. orn. i. 121. n. 117. γ.

Pf. amazonicus jamaicensis. Briff. av. iv. 276. n. 36. Ger. orn. i. 95. t. 108. Borowsk. nat. ii. 93. n. 12. Raj. av. 30. n. 2. and 181. n. 6.—Aourou-couraou. Buff. oif. vi. 217. var. 2.—Main Parrot. Brown, jam. 472. Sloan, jam. 297. Will. orn. angl. 113. n. 2. Lath. syn. i. 285. n. 91. B.

Inhabits Guiana and Amazonia.—In this variety, according to Mr Latham, the crown is yellow, the cheeks and chin being paler; the fore-head is blue; the under half of the five middle wing quills are red, as are the inner webs at the base of four tail quills on each side.

487

δ. Brazilian Ajuru Parrot.—97. δ. *Pf. aestivus brasiliensis*.

The cap is blue, variegated with black, having a yellow spot on the crown, and one on each side below the eyes, and a blue chin. Lath. ind. orn. i. 121. n. 117. δ.

Pf. brasiliensis cyanocephalos. Briff. av. iv. 234. n. 21.—Ajuru-curuca. Raj. av. 33. n. 3. Will. orn. angl. 115. n. 9.—Aourou-couraou. Buff. oif. vi. 219. var. 3.—Blue-topped Parrot. Lath. syn. i. 286. n. 91. c.

Inhabits Brasil.—The primary wing quills, according to Mr Latham, are variegated with yellow, red, and violet-blue.

488

ε. Varied Ajuru Parrot.—97. ε. *Pf. aestivus varius*.

The crown, cheeks, and chin, are yellow, and the front blue. Lath. ind. orn. i. 122. n. 117. ε.

Pf. amazonicus varius. Briff. av. iv. 281. n. 37. t. 26. f. 2. Ger. orn. i. 96. t. 115.—Ajuru-curuca secundus. Marcgr. braf. 205. Raj. av. 33. n. 2.—Aourou-couraou. Buff. oif. vi. 219. var. 4.—West-india green Parrot. Edw. av. iv. t. 162. Lath. syn. i. 287. n. 91. D.

The crown is varied with blue; the scrag and upper part of the back are variegated with yellow; the bill is ash coloured.

489

ζ. Amazonian Ajuru Parrot.—*Pf. aestivus amazonicus*.

Is pale green, with a pale yellow front, and tawny temples. Lath. ind. orn. i. 123. n. 117. ζ.

Pf. amazonicus. Syft. nat. ed. Gm. i. 341. n. 33.—*Pf. amazonicus fronte-lutea*. Briff. av. iv. 261. n. 32.—Aourou-couraou. Buff. oif. vi. 221. var. 5.—Brazilian yellow-fronted Parrot. Lath. syn. i. 287. n. 91. E.

Inhabits Brasil and Amazonia.—This variety is almost double the size of all the former varieties of this species: The cap, cheeks, and chin are yellow, the feathers on the chin having bluish tips; the eye-brows are blue; the outer wing quills are blue, being red in the middle; the lateral tail quills are blue about the middle of their outer webs, and have red inner webs.

490

n. Great Ajuru Parrot.—*Pf. aestivus magnus*.

Is green, with a blue forehead; the crown, cheeks, chin, and middle of the belly, being yellow. Lath. ind. orn. i. 122. n. 117. n.

Inhabits Brasil.—This variety is nearly as large as the former, and measures fourteen inches and a half long: The bill and cere are blackish; the armpits, or space under the wings, are red; the wing quills are marked with a red spot, and the lateral tail quills are red at the base; the belly is yellowish brown; the legs and feet are brown.

491

o. Yellow-necked Ajuru Parrot.—*Pf. aestivus flavicollo*.

Is green, with yellow head and neck, and red shoulders. Lath. ind. orn. i. 123. n. 117. n.
Ger. orn. i. 95. t. 110.

Is equal in size to the former, and like it the wing quills are marked with a red spot, and the lateral tail quills are red at the base.

492

i. Counterfeit Ajuru Parrot.—*Pf. aestivus simulatus*.

Is green, variegated with yellow; having a blue forehead, and red shoulders. Lath. ind. orn. i. 123. n. 117. n.

Perroquet Amazone varié. Pl. enl. n. 120.—Counterfeit Parrot. Will. orn. angl. 110? Lath. fyn. i. 295.

Inhabits Brasil.—The size of this variety is not mentioned; as in the two former varieties the wing quills are marked with a red spot, and the lateral tail quills are red at the base.

493

117. Yellow-shouldered Parrot.—99. *Psittacus luteus*. 114.

Is green, with a blue crown, and yellow shoulders; the larger wing coverts being marked with a large orange spot.

Pf. luteolus. Lath. ind. orn. i. 123. n. 118.—Yellow-shouldered Parrot. Lath. fyn. i. 282. n. 92.

Inhabits South America.—Is eleven inches long: The lower edge of the frontlet and the chin are yellow; the large spot on the wing is tawny yellow or dull orange.

494

118. Yellow-winged Parrot.—100. *Psittacus ochropterus*. 115.

Is green, with white front and orbits; the crown, cheeks, chin, throat, and outer feathers of the lesser coverts, being yellow.

Pf. ochropterus. Lath. ind. orn. i. 123. n. 119. Briff. av. iv. 287. n. 38. Klein, av. 25. n. 11. Frisch, av. t. 48.—Crik à tête et gorge jaune. Buff. ois. vi. 222.—Yellow-headed Creature. Bancr. guian. 159.—Yellow-winged Parrot. Lath. fyn. i. 289. n. 93.

Inhabits South America.—This species, which is not very tractable, is thirteen inches long: The bill is whitish; the feathers on the upper parts of the body are edged with black; the lesser wing coverts, on the side of the wing farthest from the body, are yellow, and those on the side next the body are

are red with yellow edges; the wing quills are black, some having blue and green edges, and four of them in the middle of the wing having the inner webs red at the base; the four middle tail feathers are yellowish at the tips; the next three on each side are red from the base to the middle; the outermost have blue outer webs; the legs and feet are ash coloured.

495 119. Mealy Parrot.—101. *Psittacus pulverulentus*. 116.

Is green, the upper parts of the body being as if powdered over with white.

Pf. pulverulentus. Lath. ind. orn. i. 123. n. 120.—Meunier, Crik poudré. Buff. oif. vi. 225.—Meunier de Cayenne. Pl. enl. n. 861.—Meally green Parrot. Lath. syn. i. 291. n. 94.

Inhabits Cayenne.—This species, which is perhaps the largest of the American Parrots, is a very distinct speaker: The bill is whitish; the feathers on the face have their edges slightly tinged with brown; the crown of the head is marked with a yellow spot; the wing quills are blackish blue, their outer webs being black; the wings are each marked with a large red spot.

496 120. Havanna Parrot.—102. *Psittacus havanensis*. 117.

Is green, the front, chin, and throat, being blue ash, the orbits ash coloured, and the breast marked with a large red spot.

Pf. havanensis. Lath. ind. orn. i. 124. n. 121.—Pf. amazonicus gutture caeruleo. Briff. av. iv. 266. n. 33. t. 25. f. 1. Ger. orn. i. 95. t. 114.—Crik à face bleue. Buff. oif. vi. 227.—Perroquet de la Havane. Pl. enl. n. 360.—Blue-fronted Parrot. Lath. syn. i. 291. n. 95.

Inhabits near the Havanna.—Is twelve inches long: The bill is whitish, with a black tip and ash coloured cere; the feathers of the upper parts of the body have blackish tips, and of the under parts bluish; the primary wing quills are black, and those in the middle have a red spot; the lateral tail quills are red at the base; the legs and feet are grey.

497 121. Paradise Parrot.—103. *Psittacus paradisi*. 34.

Is yellow; the chin, belly, and base of the tail quills, being red.

Pf. paradisi. Lath. ind. orn. i. 127. n. 132.—Pf. luteus Cubae. Briff. av. iv. 308. n. 48.—Pagai de Paradis. Buff. oif. vi. 237.—Perroquet de Cuba. Pl. enl. n. 336.—Cuba Parrot. Brown, jam. 473. Catesb. carol. i. t. 10.—Paradis Parrot. Lath. syn. i. 300. n. 105.

Inhabits Cuba.—Is about twelve inches and a half long: The bill, legs, and feet, and the naked orbits are white; the irides are red; the primary wing quills are white; the two middle tail quills are yellow; the rest of the tail quills are red, their extreme third part being yellow.

498 122. Aurora Parrot.—104. *Psittacus aurora*. 50.

Is yellow; the armpits, edges of the wings, and the middle of the outer webs of the primary wing quills, being red.

Pf. aurora. Mantiff. 1771. p. 524. Lath. ind. orn. i. 127. n. 133.—Pf. luteus. Briff. av. iv. 306. n. 47.—Perroquet jaune. Salern. orn. 69. n. 9. t. 7. f. 2. Pl. enl. n. 13.—Amazone jaune. Buff. oif. vi. 214. t. 10.—Aurora Parrot. Lath. syn. i. 301. n. 106.

Inhabits

Inhabits Brazil.—Is twelve inches long, being about the same size with the Ajuru Parrot: The bill, cere, legs, feet, and claws are white; the eye-lids and irides are red; the tail is rounded at the end, the four outer quills being red on their inner webs from the base to the middle.

499

123. Pafferine Parrot.—105. *Psittacus passerinus*. 47.

Is greenish-yellow; having a blue spot on each wing, a blue rump, and the under surfaces of the wings being blue. Mus. ad. frid. i. 14. and ii. 16.

Pf. passerinus. Lath. ind. orn. i. 133. n. 156. Borowsk. nat. ii. 95. n. 17.—Psittacula brasiliensis. Briss. av. iv. 384. n. 81.—Tuiete. Raj. av. 34. n. 6. Will. orn. angl. 116. ch. 14. n. 6.—Été, Toui-été. Buff. ois. vi. 283.—Least green-and-blue Parrakeet. Edw. glean. t. 235.—Little blue-and-green Parrakeet. Lath. syn. i. 319. n. 127.—Short-tailed yellowish-green Parroquet. Bancr. guian. 162.

Inhabits Brazil and Guiana.—Is about the size of a Common Sparrow, measuring only four inches long: The bill, cere, orbits, legs, feet, and claws are orange; the under surfaces of the wing quills, and the upper wing coverts are blue.

500

124. Blue-collared Parrot.—106. *Psittacus cyanolyseos*. 118.

Is greenish-yellow; having a blue collar, and red rump. Molin. hist. nat. Chil. 227. Lath. ind. orn. i. 127. n. 134.

Inhabits Chili.—This species, which is somewhat larger than a pigeon, is exceeding troublesome to the corn fields, but is docile and easily tamed; it forms its nest in rocky precipices, laying generally two white eggs, like those of pigeons in size; its flesh is reckoned exceedingly good, especially when young.

501

125. Dusky Parrot.—107. *Psittacus fordidus*. 40.

Is brownish; with a blue chin, green tail and wings, and red bill and ventlet.

Pf. fordidus. Lath. ind. orn. i. 127. n. 135.—Pf. novae hispaniae. Briss. av. iv. 303. n. 45.—Papagai brun. Buff. ois. vi. 246.—Dusky Parrot. Edw. av. iv. t. 167. Lath. syn. i. 304. n. 110.

Inhabits New-spain.—Is about the size of a pigeon: The bill is red, with a blackish cere; the orbits are naked and pale ash coloured; the irides are chestnut; the temples, hind-head, rump, and upper surface of the tail are greenish; the under coverts of the tail are red; the legs and feet are lead coloured, with black claws.

502

126. Red banded Parrot.—108. *Psittacus dominicensis*. 119.

Is green, with a red band across the forehead; the wing quills being blue.

Pf. dominicensis. Lath. ind. orn. i. 126. n. 131.—Papagai à bandeau rouge. Buff. ois. vi. 241.—Perroquet de St Domingue. Pl. enl. n. 792.—Red-banded Parrot. Lath. syn. i. 300. n. 104.

Inhabits Hispaniola.—Is nine inches and a half long: The scrag of the neck and the back are marked with small femilunar black spots; the bill is a pale flesh colour; the legs and feet are ash coloured.

503 127. Crimson-winged Parrot.—109. *Psittacus erythropterus*. 120.

Is green, with blackish orbits; the fore part of the back being black, and the hinder part blue; the wing coverts are crimson. Lath. ind. orn. i. 126. n. 130. Syn. i. 299. n. 103. sup. 60.

Inhabits New-south-wales.—Is from ten to thirteen inches and a half long: The bill is red, with a dusky or dirty cere; the tail is rather longer in proportion than in the other species of this subdivision of the genus; the legs and feet are dirty looking.—The *female* of this species differs from the male in having a green back, the wing coverts green, the middle feathers of the greater coverts being red. Lath.

504 128. Festive Parrot.—110. *Psittacus festivus*. 35.

Is green, with a purplish front; the eyebrows and chin being blue, and the back blood-red.

Pf. festivus. Lath. ind. orn. i. 126. n. 129.—Tavoua. Buff. ois. vi. 240.—Perroquet Tahué. Pl. enl. n. 840.—Festive Parrot. Lath. syn. i. 298, n. 102.

Inhabits Guiana.—This species, which is very active, but fierce and untractable in its manners, is about the size of a pigeon, and measures eleven inches long: The bill is lead coloured, with a black tip, and having a blackish grey cere; the irides are saffron yellow; the legs and feet are ash coloured, with black claws.

505 129. Robust Parrot.—111. *Psittacus robustus*. 121.

Is green, the head being somewhat ash coloured; the wing coverts are dirty black with green edges, and marked with a red spot; the wing and tail quills are brown.

Pf. robustus. Lath. ind. orn. i. 112. n. 94.—Robust Parrot. Lath. syn. i. 296. n. 100.

Its place uncertain.—Is about the size of a pigeon, and measures twelve inches long: The bill is large and of a white colour; the upper edge of the frontlet is blackish; the feathers on the crown of the head have each a dusky streak in the middle; the legs and feet are dusky.

506 130. New-Guinea Parrot.—112. *Psittacus magnus*. 122.

Is grass-green; having the primary wing quills blue, and the under surfaces of the secondaries red.

Pf. viridis. Lath. ind. orn. i. 125. n. 125.—Grand Perroquet vert. Sonner. voy. 74. t. 108.—New-guinea green Parrot. Lath. syn. i. 296. n. 99.

Inhabits New-guinea.—Is about the size of the Ajuru Parrot: The upper mandible of the bill is of an orpiment-yellow colour, and the under mandible black; the irides are flame yellow.

507 131. Eastern Parrot.—*Psittacus orientalis*.

Is green; the outer margin of the wings, and the primary wing quills, are bluish; the tail is tipped with yellow. Lath. ind. orn. i. 125. n. 126. Syn. sup. 64. n. 140.

Inhabits

Inhabits India.—Is about the size of the last: The bill is red, with a yellow tip; the legs and feet are yellow.

508

132. Blue-cheeked Parrot.—*Psittacus adscitus*.

Is green, with blue cheeks and wings; the fore part of the back is black with yellow streaks, and the hinder part is yellowish. Lath. ind. orn. i. 126. n. 127. Syn. sup. 64. n. 142.

Its place uncertain.—Is eleven inches and a half long: The bill and crown of the head are pale yellow; the cheeks are pale blue; the wings are bright blue; the legs and feet are dusky; the ventlet is red.

509

133. Batavian Parrot.—*Psittacus batavensis*.

Is green with yellow streaks; the hind head and nape being blackish, and the face and thighs scarlet. Lath. ind. orn. i. 126. n. 128.

Amber Parrot. Lath. syn. sup. 65. n. 144.

Inhabits near Batavia.—The bill is black; the legs and feet are ash coloured.

510

134. Tarabe Parrot.—113. *Psittacus Taraba*. 123.

Is green, the head, chin, throat, breast, and lesser wing coverts, being red.

Pf. Tarabe. Lath. ind. orn. i. 125. n. 124.—Pf. brasiliensis erythrocephalus. Briss. av. iv. 240. n. 24.—Tarabe. Raj. av. 33. n. 5. Will. orn. angl. 114. n. 9.—Tarabé, or Amazone à tête rouge. Buff. ois. vi. 211.—Red-headed Amazons Parrot. Lath. syn. i. 295. n. 97.

Inhabits Brasil.—Is about ten inches long: The bill, legs, and feet are ash coloured, with black claws; the orbits are naked and white; the irides are yellowish brown.

511

135. Brazilian Parrot.—114. *Psittacus brasiliensis*. 36.

Is yellowish green; with a red face, blue temples, and ash coloured orbits. Lath. ind. orn. i. 125. n. 122. d.

Pf. brasiliensis fronte rubra. Briss. av. iv. 254. n. 30.—Crik à tête blue. Buff. ois. vi. 232. var. 3.—Brazilian green Parrot. Edw. av. iv. t. 161. Bancr. guian. 160. Lath. syn. i. 294. n. 96. c.

Inhabits Brasil.—Is about the size of a pigeon: The armpits are red; the second tail quill on each side is red on its outer web; the rest of the tail quills and the primary wing quills have blue outer webs. Dr Gmelin supposes this might be considered as a variety of the next species, and Mr Latham has placed it as such.

512

136. Autumnal Parrot.—115. *Psittacus autumnalis*. 37.

Is green; with a scarlet front, and having a scarlet spot on the wing quills; with a blue crown, and blue primary wing quills.

Pf. autumnalis. Lath. ind. orn. i. 124. n. 122.—Pf. americanus. Briss. av. iv. 293. n. 40. Ger. orn.

orn. ii. 22. t. 135.—Crik à tete bleue. Buff. oif. vi. 232. var. 2.—Lesser green Parrot. Edw. av. iv. t. 164. Bancr. guian. 160.—Autumnal Parrot. Lath. syn. i. 293. n. 96. B.

Inhabits Guiana.—Is about the size of a pigeon: The bill and cere are whitish; the orbits are blue, with a tawny spot below each eye; the irides are golden yellow; the greater wing coverts are blue, the feathers being red at the base; the wing quills nearest the body are green; the tail quills are green on their upper surfaces, and yellowish at the tips, the outermost on each side having its outer web blue; on their under surfaces they are yellow, with reddish bases, and a green spot on the middle.

513 β. Blue-headed Autumnal Parrot.—115. β. *Pf. autumnalis cyanocephalus*.

The front and chin are blue; the throat and breast are red; the wing quills are blue, those in the middle having red bases. Lath. ind. orn. i. 124. n. 122. β.

Crik à tete bleue. Buff. oif. vi. 230.—Blue-faced green Parrot. Edw. glean. t. 230. Lath. syn. i. 293. n. 96.—Blue-headed creature. Bancr. guian. 158.

Inhabits with the former, and is of the same size.

514 γ. Cocho Autumnal Parrot.—115. γ. *Pf. autumnalis Cocho*.

The head is variegated with red and whitish. Lath. ind. orn. i. 124. n. 122. γ.

Cocho. Fernand. nov. hisp. 38.—Crik à tete bleue. Buff. oif. vi. 231. var. 1.—Red-and-white-faced Parrot. Lath. syn. i. 293. n. 96. α.

Inhabits with the former, and is of the same size.—This and the former variety agree in general with the first variety of the Autumnal Parrot, except in such circumstances as are particularly noticed.

515 137. Scarlet-headed Parrot.—*Pfittacus coccineocephalus*.

Is green, the crown and front being scarlet; the rump is greenish yellow; the outer webs of the wing and tail quills are blue.

Pf. pileatus. Lath. ind. orn. i. 125. n. 123. Scop. an. i. n. 32.

Its place uncertain.—Is about the size of the Mistle Thrush: The bill is pale horn coloured; the cheeks are naked; the outer edges of the wings are yellow; the tip of the tail is yellow.

516 138. Hawk-headed Parrot.—116. *Pfittacus accipitrinus*. 38.

Is green, with a grey head; the neck and breast being varied with bluish, and the wing and tail quills having blue tips.

Pf. accipitrinus. Lath. ind. orn. i. 111. n. 89. Ger. orn. i. 96. t. 120. Borowfk. nat. ii. 93. n. 13.—*Pf. varius indicus*. Briss. av. iv. 300. n. 43.—*Pf. elegans*. Clus. exot. 365. Raj. av. 32. n. 11.—Perroquet varié. Buff. oif. vi. 117.—Hawk-headed Parrot. Edw. av. iv. t. 165. Lath. syn. i. 266. n. 74.

Inhabits India.—Is about the size of a pigeon, and measures twelve inches and a half long : The bill, cere, and naked orbits are blackish ; the irides are yellowish brown, or walnut coloured ; the legs and feet are lead coloured.

517 β. Mailed Hawk-headed Parrot.—116. *Pf. accipitrinus loricatus*.

The feathers on the head are long, narrow, and white, with black streaks. Lath. ind. orn. i. 112. n. 89. β.

Papagai maillé. Buff. ois. vi. 239. t. 12.—Perroquet maillé. Pl. enl. n. 526.—Mailed Parrot. Lath. fyn. i. 267. n. 74. α.

Inhabits Guiana in a domesticated state, being descended from the former ; from which it chiefly differs by the long narrow white feathers on the crown and face, which are all streaked with black down the middle ; these it erects into a kind of crest when irritated.

518 139. Menstrual Parrot.—117. *Psittacus menstruus*. 39.

Is green, with a bluish head, and red ventlet. Scop. an. i. 33.

Pf. menstruus. Lath. ind. orn. i. 113. n. 95.—*Pf. gujanensis cyanocephalus*. Briss. av. iv. 247. n. 28.—Papagai à tete-et-gorge bleue. Buff. ois. vi. 243.—Perroquet à tete bleue de Cayenne. Pl. enl. n. 384.—Blue-headed Parrot. Edw. glean. t. 314. Lath. fyn. i. 301. n. 107.

Inhabits Guiana.—This species, which is not very docile, and has the natural voice of a Jackdaw, is about the size of a Turtle dove : The head and neck are bluish, the feathers being brown, with blue tips ; the back and wings are green, the wing coverts being yellowish green, and the wing quills green with brown inner edges ; the belly is green, the feathers having bluish tips ; the tail quills are green, with blue tips, the three outermost on each side having blue outer webs, and the inner webs being blood-red from the base to the middle ; the ventlet is red, its feathers having yellowish blue tips ; the bill is horn coloured, the sides of the upper mandible being tawny ; the orbits are bluish hoary, and the eyes are black.

519 140. Purple-bellied Parrot.—118. *Psittacus purpureus*. 124.

Is blackish-brown above, and purple underneath ; the crown and cheeks being black, the orbits blue, and the neck surrounded by a rusty collar, spotted with dusky.

Pf. purpureus. Lath. ind. orn. i. 129. n. 140.—Perroquet violet. Barrere, fr. equ. 144.—Papagai violet. Buff. ois. vi. 244.—Perroquet varié de Cayenne. Pl. enl. n. 408.—Little dusky Parrot. Edw. glean. t. 315. Lath. fyn. i. 302. n. 108.

Inhabits Surinam.—This species, which is not very tractable, is about the size of an ordinary pigeon : The bill is dusky, with an orange coloured spot on each side ; the wing and tail quills are blue, the lateral tail quills being ruddy on their inner webs and blue at the tips ; the legs and feet are dusky or dirty-like.

520 141. Black-headed Parrot.—119. *Psittacus melanocephalus*. 41.

Is green above, and yellow beneath ; having a black head, white breast, and carnation orbits. Mus. ad. frid. ii. 15.

Pf. melanocephalus. Lath. ind. orn. i. 128. n. 136.—*Pf. mexicanus pectore albo*. Briff. av. iv. 297. n. 42.—*Pf. atricapillus*. J. F. Miller, illustr. t. 4. A.—Maïpouri. Buff. ois. vi. 250. Pl. enl. n. 527.—White-breasted Parrot. Edw. av. iv. t. 169. Lath. syn. i. 305. n. 112.

Inhabits New-spain, Guiana, and the Caraccas.—This species lives in the woods, flying in small flocks, with a whistling voice; it is about the size of a Turtle dove, being nine inches and a half long, and thicker in proportion to its length than the other species of the genus; it is very untractable, and can scarcely be tamed unless when caught very young: The bill and cere are carnation coloured; the cheeks are yellow; the scrag is orange; the outer webs of the primary wing quills are blue, their inner webs and under surfaces being black; the first two or three of the secondaries are green edged with yellow, and the rest entirely green; the tail is rounded; the legs and feet are brown ash, with blackish claws.

521

142. Hooded Parrot.—120. *Psittacus pileatus*. 125.

Is green, with a black head and white orbits; having a blue spot on each shoulder, and the tail being tipped with blue.

Pf. Caïca. Lath. ind. orn. i. 128. n. 137.—*Caïca*. Buff. ois. vi. 253.—*Perruche à tete noir de Cayenne*. Pl. enl. n. 744.—Hooded Parrot. Lath. syn. i. 306. n. 113.

Inhabits Cayenne.—This species resembles the former in the thickness of its body; it is migratory, and measures eight inches and a half long: The bill, legs, and feet are red; the chin is yellowish; the two middle quill feathers of the tail are entirely green, and the rest are tipped with blue.

522

143. Louisiana Parrot.—121. *Psittacus ludovicianus*. 126.

Is sea-green; with a tawny yellow head, growing reddish near the base of the bill. Lath. ind. orn. i. 93. n. 33. β.

Pf. viridis capite luteo. Frisch, av. t. 52. Ger. orn. ii. 17. t. 112.—*Papagai à tete aurore*. Buff. ois. vi. 247. Du Pratz, voy. ii. 128.—Orange-headed Parrot. Lath. syn. i. 304. n. 111.

Inhabits Louisiana.—This species is very wild and exceedingly difficult to tame; it flies about in large flocks, making a great noise, and feeds mostly on the seeds of *Bromelia* and *Liriodendron*: It is thirteen inches long; the bill is yellowish white, and the legs and feet are white. Mr Latham places this as a variety of the Carolina Parrot, N^o. 370. among the species which have long wedge-like tails, quoting the 499th plate of the *Planches enluminées*, which Dr Gmelin refers to the Carolina species.

523

144. Red-throated Parrot.—122. *Psittacus collarius*. 42.

Is green; with red chin and throat. Lath. ind. orn. i. 128. n. 139.

Pf. jamaicensis guttore rubro. Briff. av. iv. 241. n. 25.—*Pf. minor collo miniaceo*. Raj. av. 181. n. 8.—*Xaxabes*. Oviedo, l. iv. c. 4.—*Saffebé*. Buff. ois. vi. 245.—Common Jamaica Parrot. Sloan, jam. 297. n. 9.—Red-throated Parrot. Lath. syn. i. 303. n. 109.

Inhabits Jamaica.—Is about the size of a pigeon: The wing quills are black, with green outer edges.

524

145. Senegal Parrot.—123. *Psittacus senegalus*. 43.

Is green above, and yellow beneath; having an ash coloured head, with naked black orbits.

Pf. senegalus. Lath. ind. orn. i. 128. n. 138.—*Psittacula senegalensis*. Briff. av. iv. 400. n. 92. t. 24. f. 2.—Perroquet à tête grise. Buff. ois. vi. 123. Pl. enl. n. 288.—Senegal Parrot. Lath. syn. i. 307. n. 114.

Inhabits Senegal.—This species, which measures eight inches and a half long, is very numerous about the sandy shores of the river Senegal; it flies about in little companies of five or six together, making a sharp harsh noise, and roosts on the highest tops of the trees: The bill is ash coloured, with a blackish cere; the irides are yellow; the wing quills and feathers of the bastard wing are ash coloured, having green edges and green tips; the legs and feet are reddish ash.

525

146. Tuipara Parrot.—124. *Psittacus Tuipara*. 127.

Is pale green; with a semilunar red spot on the front, and having a yellow spot on the middle of each wing.

Pf. Tuipara. Lath. ind. orn. i. 129. n. 141.—*Psittacula brasiliensis erythrocephalos*. Briff. av. iv. 383. n. 82.—Tuipara. Raj. av. 35. n. 7. Will. orn. angl. 117.—Red-fronted Parrot. Lath. syn. i. 308. n. 115.

Inhabits Brazil.—Is about the size of a Lark: The bill is carnation red; the tail is very short; the legs, feet, and claws are grey.

526

147. Golden-winged Parrot.—125. *Psittacus chrysopterus*. 44.

Is green, with white naked orbits; having a blue and tawny yellow spot on each wing.

Pf. chrysopterus. Lath. ind. orn. i. 129. n. 142.—*Psittacula alis deauratis*. Briff. av. app. 130. n. 97.—Perruche aux ailes d'or. Buff. ois. vi. 170.—Golden-winged Parrakeet. Edw. glean. t. 293. f. 2. Lath. syn. i. 309. n. 116.

Inhabits India.—Is very little larger than a Lark: The bill is white; the first four primary wing quills have blue outer webs, and their inner webs are brown, all the rest are orange on their upper surfaces and yellow underneath.

527

148. Ethiopian Parrot.—126. *Psittacus pullarius*. 45.

Is green; with red chin and front, ash coloured orbits, blue rump, and tawny tail, having a black transverse band.

Pf. pullarius. Mus. ad. frid. ii. 15. Scop. an. i. 33. n. 34. Lath. ind. orn. i. 129. n. 143. Borowsk. nat. ii. 95. n. 18.—*Pf. minimus*. Clus. exot. 365.—*Pf. pusillus aethiopicus*. Raj. av. 31. n. 10.—*Pf. minor vericolor*. Seb. mus. ii. 40. t. 40. f. 1.—*Psittacula guineensis*. Briff. av. iv. 387. n. 85. Ger. orn. ii. 21. t. 133.—Perruche à tête rouge de Guinée, Moineau de Guinée. Buff. ois. vi. 165. t. 7.—Petite Perruche de Guinée. Pl. enl. n. 60.—Little red-headed Parrakeet, or Guinea Sparrow.

Sparrow. Albin, av. iii. t. 15. Edw. glean. t. 237.—Red-headed Guinea Parrakeet. Lath. syn. i. 309. n. 117.—Indianische Spatz. Wirfing. vog. t. 12.—Kleinster gruner Papagay. Frisch, av. t. 54.

Inhabits Guinea, Ethiopia, India, and Java.—Is about the size of a Lark, and measures five inches and a half long; this small species is very imitative of the manners of other birds, but by no means equally dextrous in learning to speak; it is exceedingly fond of its own species: The bill is red, with an ash coloured cere; the irides are bluish; the two middle tail quills are entirely green, and the rest have green tips; the legs, feet, and claws are grey. In the *female* the front is of a less vivid red colour, and the wings are edged with yellow.

528

149. Malacca Parrot.—*Psittacus malaccensis*.

Is green; with blue front and rump, the under wing coverts being red. Lath. ind. orn. i. 130. n. 144.

Petite Perruche de Malacca. Sonner. voy. ii. 212.—Blue-rumped Parrakeet. Lath. syn. sup. 66.

Inhabits Malacca.—Is about the size of the former: The bill is of a greyish violet colour; the irides are red; the legs and feet are brown.

529

150. Red-naped Parrot.—*Psittacus cervicalis*.

Is green; the front, a semilunar spot on the nape, the under part of the throat, and the breast, being scarlet. Lath. ind. orn. i. 130. n. 145.

Red-naped Parrakeet. Mus. D. Davies. Lath. syn. sup. 66.

Its place uncertain.—Is about the size of the two former: The tail is entirely green.

530

151. Indian Parrot.—127. *Psittacus indicus*. 128.

Is green; with pale carnation orbits, and red or orange crown; the hinder part of the rump is red; the inner webs of the wing quills, and the under surface of the tail quills, are bluish green.

Pf. asiaticus. Lath. ind. orn. i. 130. n. 146.—Pf. minimus. Ger. orn. ii. 21. t. 134.—*Psittacula indica*. Briss. av. iv. 390. n. 86.—Smallest red-and-green Indian Parrot. Edw. av. i. t. 6.—Red-and-green Indian Parrot. Lath. syn. i. 311. n. 118.

Inhabits India.—Is about the size of the former, measuring five inches long: The bill is orange or yellowish red; the upper tail coverts are red; the legs, feet, and claws, are carnation red.

531

152. Vernal Parrot.—*Psittacus vernalis*.

Is bright green, the wings being paler; the throat, rump, and tail, are blood-red. Mus. carlf. ii. 29. Lath. ind. orn. i. 130. n. 147.

Its place is not mentioned.—Is about the size of the former, measuring five inches and a half in length: The bill is pale reddish; the wing coverts are very full green, and the wing quills of a light or bluish green colour; the under surface of the tail is blue; the legs and feet are pale; the under parts of the body are pale green.

532

153. Saphirine Parrot.—128. *Psittacus galgulus*. 46.

Is green, with a saphire-blue crown; the rump and breast being scarlet.

Pf. galgulus. Amoen. acc. iv. 236. Mus. ad. frid. ii. 16. Oſbec. voy. 101. Lath. ind. orn. i. 131. n. 148.—*Psittacula malaccensis*. Briff. av. iv. 386. n. 84.—*Avicula cechini*. Aldr. orn. l. xx. 560.—*Perruche à tete bleue*. Buff. oif. vi. 163.—*Petite Perruche de Pérou*. Pl. enl. n. 190. f. 2.—*Petit Perruche de Luçon*. Sonner. voy. 76. t. 33. f. inf.—*Saphire-crowned Parrakeet*. Edw. glean. t. 293. f. 2. Lath. syn. i. 312. n. 119. A.

Inhabits the Philippine islands, and probably in other islands of the Indian ocean.—This species is scarcely five inches long, and sometimes a good deal smaller; it is very fond of the milky juice of the cocoa-nut, and sleeps suspended to the branch of a tree by one foot: The bill, legs, and feet are grey; the wing quills are blue on their under surfaces, except the outer edges which are green; the under surfaces of the tail quills are bluish; the throat is blood-red. In the *female* the red colour of the throat and the blue colour of the crown are wanting, these parts being of the general green colour of the body.

533

β. Philippine Saphirine Parrot.—128. β. *Ps. galgulus philippensis*.

Is green; with a yellowish blue head, having a transverse orange bar on the hind head; the front, under part of the throat, and the tail coverts, being red. Lath. ind. orn. i.

131. n. 148. β.

Psittacula philippensis. Briff. av. iv. 392. n. 87. t. 30. f. 1.—*Coulicassi*. Buff. oif. vi. 169.—*Perruche des Philippines*. Pl. enl. n. 520. f. 1. 2.—*Philippine Parrakeet*. Lath. syn. i. 311, n. 119.

Inhabits with the former, and is of the same size.—The bill, legs, feet, and claws are red; the wing quills are blackish, with dark green edges; the tail is rounded, the coverts being almost equally long with the quill feathers. In the *female* the head and nape are entirely green, and the cheeks have each a bluish spot. Lath.

534

154. Anaca Parrot.—129. *Psittacus Anaca*. 129.

Is green above, and reddish brown underneath; the crown being chefnut; the tail and a spot on the back are pale brown, and the wings are edged with red.

Pf. Anaca. Lath. ind. orn. i. 131. n. 149.—*Psittacula brasiliensis fusca*. Briff. av. iv. 403. n. 93.—*Anaca*. Raj. av. 35. n. 8. Will. orn. angl. 117. n. 8. Buff. oif. vi. 260.—*Chefnut-crowned Parra-keet*. Lath. syn. i. 314. n. 120.

Inhabits Brasil and Guiana.—Is about the size of a Lark: The bill and orbits are brown; the under coverts of the tail are reddish brown; the tips of the primary wing quills are sea-green; the legs, feet, and claws are blackish.

535

155. Purple-tailed Parrot.—130. *Psittacus purpuratus*. 130.

Is green, with ash coloured crown and scrag; having the rump blue, the tail coverts green and very long, and the tail quills red-purple tipped with black.

Pf.

Pf. purpuratus. Lath. ind. orn. i. 132. n. 150.—*Pf. porphyryrus*, Purple-tailed Parrakeet. Nat. misc. N^o. vi. t. 16. Lath. fyn. i. 315. n. 121.

Inhabits Cayenne.—Is eight inches long : The bill is yellowish ; the scapulars, bastard wings, edges of the wings, and ends of the wing quills, are dusky ; the two middle tail quills are green edged with black at the tip ; the legs and feet are ash coloured with yellowish claws.

536

156. Grey-headed Parrot.—131. *Psittacus canus*. 131.

Is green ; the head, chin, and throat, being greenish grey ; the tail is rounded, and has a broad black bar.

Pf. canus. Lath. ind. orn. i. 132. n. 151.—*Psittacula madagascariensis*. Briss. av. iv. 394. n. 88. t. 30. f. 2.—*Perruche à tête grise*. Buff. ois. vi. 171.—*Petite Perruche de Madagascar*. Pl. enl. n. 791. f. 2.—Grey-headed Parrakeet. Lath. fyn. i. 315. n. 122.

Inhabits Madagascar and Mauritius.—Is scarcely six inches long : The bill is grey ; the legs, feet, and claws are hoary. In the *female* the head is green.

537

157. Black-winged Parrot.—132. *Psittacus melanopterus*. 132.

Is pale green ; the back, wing coverts, primary wing quills, and a bar on the tail, being black.

Pf. melanopterus. Lath. ind. orn. i. 132. n. 152.—*Perruche aux ailes variées*. Buff. ois. vi. 172.—*Petite Perruche de Batavia*. Pl. enl. n. 791. f. 1.—*Petite Perruche de Luçon*. Sonner. voy. 78. t. 41.—Black-winged Parrakeet. Brown, illustr. t. 8. Lath. fyn. i. 316. n. 123.

Inhabits Java and Luzonia.—Is six inches long : The bill and legs are dusky ; the green colour on the under parts of the body has a bluish tinge ; the upper part of the tail is purplish ; the two middle tail quills are green, without any bar ; the under coverts of the tail are almost equal in length with the tail quills ; the secondary wing quills are yellowish, spotted with blue.

538

158. Cape Parrot.—133. *Psittacus capensis*. 133.

Is green ; the wings being varied above with blue, and entirely blue underneath ; having reddish bill and legs. Lath. ind. orn. i. 132. n. 153.

Perruche aux ailes bleues. Buff. ois. vi. 173.—*Petite Perruche du Cap*. Pl. enl. n. 455. f. 1.—Blue-winged Parrakeet. Lath. fyn. i. 317. n. 124.

Inhabits at the Cape of Good Hope.—Is four inches and a half long : This species is sometimes found with a blue spot on the crown, and having yellow legs and feet. Lath.

539

159. Collared Parrot.—134. *Psittacus torquatus*. 134.

Is green ; having a yellow transverse bar streaked with black on the hind head.

Pf. torquatus. Lath. ind. orn. i. 133. n. 154.—*Perruche à collier*. Buff. ois. vi. 173.—*Petite Perruche à collier*. Sonner. voy. 77. t. 39.—Collared Parrakeet. Lath. fyn. i. 317. n. 125.

Inhabits

Inhabits the Philippine islands.—This species, which does not learn to speak, is about the size of the Ethiopian Parrot, N°. 527. The bill, irides, legs, and feet, are blackish grey. In the *female* the hind head is blue with transverse black streaks.

540

160. Lesser Parrot.—135. *Psittacus minor*. 135.

Is green; having a scarlet crown, scarlet tail coverts, blue breast, and black primary wing quills.

Pf. minor. Lath. ind. orn. i. 133. n. 155.—Perruche aux ailes noires. Buff. oif. vi. 174. Sonner. voy. 77. t. 4.—Luzonian Parrot. Lath. syn. i. 318. n. 126.

Inhabits Luzonia.—Is smaller than the preceding; it sleeps hanging by one foot to the branches of trees, and is fond of the Cocoa-nut juice: The bill, irides, legs, and feet, are yellow; the belly is yellowish green; the upper tail coverts are red. In the *female* the frontlet and breast are red, and the scrag has a yellow spot.

541

161. Tovi Parrot.—136. *Psittacus Tovi*. 136.

Is green; with a pale orange spot on the throat; the wings have each a broad chestnut band, varied with splendid golden green.

Pf. Tovi. Lath. ind. orn. i. 134. n. 157.—*Psittacula gutturo luteo*. Briss. av. iv. 396. n. 89. t. 30. f. 3.—Tovi à gorge jaune. Buff. oif. vi. 280.—Petite Perruche à gorge jaune. Pl. enl. n. 190. f. 1.—Yellow-throated Parrakeet. Lath. syn. i. 319. n. 128.

Inhabits America?—Is about the size of a Lark, measuring a little more than six inches long; the legs and feet are grey.

542

162. Tirica Parrot.—137. *Psittacus Tirica*. 137.

Is green; with a carnation bill; and having bluish legs, feet, and claws.

Pf. Tirica. Lath. ind. orn. i. 134. n. 158.—*Psittacula brasiliensis*. Briss. av. iv. 382. n. 81.—Tui-tirica. Raj. av. 34. n. 3. Will. orn. angl. ch. iv. § 4. n. 3. Buff. oif. vi. 281.—Petite Jaseuse. Pl. enl. n. 837.—Green Parrakeet. Brown, jam. 473. Lath. syn. i. 320. n. 129.

Inhabits Brazil and Jamaica.—Is about the size of a Lark.

543

163. Sofove Parrot.—138. *Psittacus Sofove*. 138.

Is green, with a grey bill; the coverts of the wings and tail are marked with a pale yellow spot.

Pf. Sofove. Lath. ind. orn. i. 134. n. 159.—Sofové. Buff. oif. vi. 280.—Petite Perruche de Cayenne. Pl. enl. n. 456. f. 2.—Cayenne Parrakeet. Lath. syn. i. 320. n. 130.

Inhabits Guiana and Cayenne.—This species is easily tamed, and learns to speak with great distinctness; its size is not noticed: The legs and feet are grey.

544

164. Tui Parrot.—139. *Psittacus Tui*. 139.

Is green; with a black bill, orange front, and yellow orbits.

Pf.

Pf. Tui. Lath. ind. orn. i. 134. n. 160.—*Pfittacula brafilienfis icterocephalos*. Briff. av. iv. 398. n. 90.—Tui. Raj. av. 34. n. 4. Will. orn. angl. 116. n. 4.—Tovi à tete d'or. Buff. ois. vi. 284.—Petite Perruche de S. Thomas. Pl. enl. n. 456. f. 1.—Gold-headed Parrot. Lath. fyn. i. 321. n. 131.

Inhabits Brafil.—Is about the size of a Starling: The eyes are large and blackish. Sometimes this species is found with the front pale yellow instead of orange coloured, and having a red bill.

545

165. Red-tailed Parrot.—140. *Pfittacus erythrochlorus*. 140.

Is green, the head being crested; and having red wings and tail.

Pf. erythrochlorus. Lath. ind. orn. i. 134. n. 161.—*Pfittacula cristata*. Briff. av. iv. 404. n. 94.—*Pfittacus erythrochlorus*. Raj. av. 34. n. 4.—Crested red-and-green Parrot. Will. orn. angl. 116. n. 3.—Crested red-and-green Parrakeet. Lath. fyn. i. 321. n. 132.

Its place uncertain.—Is about the size of a blackbird: The crest, which is moveable at pleasure, consists of six feathers, three of which are considerably longer than the rest; the irides and hind head are red.

546

166. Mexican Parrot.—141. *Pfittacus mexicanus*. 141.

Is green, with a crest on the front; the tail and the wing coverts are purple, the orbits blue, the chin yellow, and scrag red.

Pf. mexicanus. Lath. ind. orn. i. 135. n. 162. Ger. orn. ii. 21. t. 131.—*Pfittacula mexicana cristata*. Briff. av. iv. 405. n. 95.—Avis de cocho. Seba, mus. i. 94. t. 39. f. 2.—Crested Mexican Parrakeet. Lath. fyn. i. 322. n. 133.

Inhabits Mexico and New-spain.—Is seven inches long: The bill is yellow; the wing quills have white edges; the thighs are bluish; the legs, feet, and claws are ash coloured.

VI. TOUCAN.—6. *RAMPHASTOS*. 46.

The bill is enormously large, thin, light, and empty, convex, and somewhat ridged at the top, and serrated at the edges; both mandibles being somewhat hooked at the tip: The nostrils are long, narrow, and placed behind the base of the bill: The tongue is long, narrow, and feathered at the edges: The feet are mostly climbers, having two toes placed forwards and two backwards.

This genus is entirely confined to the tropical regions of South America; it is very impatient of cold, and in its wild state flies about in little troops of eight or ten together, living mostly on fruits, particularly those of various palms; it breeds in hollows of trees, which have been deserted by Wood-

peckers, laying usually two eggs each brood; it is very noisy, and easily tamed. Toucan is the Brazilian name; the Latin name, which was given to the genus by Linnaeus, is derived from the form of its bill.

547

1. Green Toucan.—1. *Ramphastos viridis*. 1.

Is green, with a yellow belly, and red rump.

R. viridis. Lath. ind. orn. i. 138. n. 9.—*Tucana cayennensis viridis*. Briss. av. iv. 123. n. 8. t. 33. f. 2.—Toucan verd de Cayenne. Buff. ois. vii. 127. Pl. enl. n. 727. 728.—Yellow-breasted Toucan. Edw. t. 329.—Green Toucan. Lath. syn. i. 331. n. 9.

Inhabits Cayenne.—Is fourteen inches long: The under mandible is black, its base and near the nostrils being red; the upper mandible is yellow, with red sides, and having a black line along the ridge; the teeth in both are white; the naked orbits and the irides are yellow; the tail is wedge-like, its under surface having a yellowish tinge; the legs and feet are lead coloured, with black claws: In the *male* the head, chin, and throat are black; in the *female* these parts are chestnut, divided from the green colour below by a narrow black transverse bar.

548

β. Toothless Green Toucan.—*R. viridis edentulus*.

The bill is not serrated at the edges.

R. glaber. Lath. ind. orn. i. 138. n. 10.—Smooth-billed Toucan. Lath. syn. sup. 67.

Inhabits with the former, and is nearly of the same size, measuring twelve inches long.—It is placed as a distinct species by Mr Latham, but with a doubt that it may only be a variety: It is of a green colour, the under parts being greenish yellow; the head and neck are chestnut; the rump is red; the bill is brown on the upper, and black on the under mandible; the thighs are green.

549

2. Pavonine Toucan.—2. *Ramphastos pavoninus*. 9.

Is green, interspersed with some red spots.

R. pavoninus. Lath. ind. orn. i. 137. n. 8.—*Tucana mexicana viridis*. Briss. av. iv. 423. n. 7.—Xochitenacatl. Fern. nov. hisp. 51. c. 187.—Hochicat. Buff. ois. vii. 125.—Pavonine Toucan. Lath. syn. i. 331. n. 8.

Inhabits New-spain and Mexico.—This species lives near the sea-coast, and feeds on fish; it resembles the Parrot a good deal in the general appearance of the body, and is about seventeen inches long: The bill is four inches long, and variegated with black and yellow; the legs are short, and with the feet are black. Brisson, Gmelin, and Latham all add that this bird is interspersed with peafowl coloured, *color pavoninus*, and red spots; while Fernandez, who is the only author who has seen it, as quoted in Buffon's Natural History of birds, mentions only the scattered red spots.

550

3. Piperine Toucan.—3. *Ramphastos piperivorus*. 2.

The head, neck, and breast, are black, having a narrow yellow half collar on the nape; the back, rump, and belly, are green; the tail is green, tipped with red.

R. piperivorus. Lath. ind. orn. i. 138. n. 12.—*Tucana cayennensis torquata*. Briss. av. iv. 429. n.

n. 10. t. 32. f. 2.—Koulik. Buff. ois. vii. 128.—Toucan à collier de Cayenne, *male*. Pl. enl. n. 577.—Toucan à ventre gris, *female*. Pl. enl. n. 729.—Green Toucan, *male*. Edw. glean. t. 330.—Piperine Toucan. Lath. syn. i. 334. n. 11.

Inhabits Cayenne.—Is thirteen inches long : The bill is black, with a red base ; the orbits are naked and bluish ; the temples are each marked with an orange yellow spot ; the wing quills are brown, edged with green ; the tail is wedge-like, of a green colour above, tipped with red, and brown underneath, tipped with chestnut, having red under coverts ; the legs and feet are dark leaden colour, with black claws. In the *female* the under parts of the body are grey ; the scrag is brown, and the femi-lunar half collar is pale yellow.

551

4. Aracari Toucan.—4. *Ramphastos Aracari*. 3.

Is dusky green, with the rump and ventlet red ; the breast and belly are yellow, the latter having a red bar.

R. Aracari. Lath. ind. orn. i. 138. n. 11.—R. rostro nigro. Syst. nat. ed. i. 104.—Tucana brasiliensis viridis. Briss. av. iv. 426. n. 9. t. 33. f. 2.—Aracari. Marcgr. bras. 217. Raj. av. 44. n. 2. Will. orn. angl. 140. t. 22.—Aracari Toucan. Lath. syn. i. 332. n. 10.—Grigri. Buff. ois. vii. 126.—Toucan verd de Brésil. Pl. enl. n. 166.—Kleine Toucan. Wirsing. vog. t. 41.

Inhabits Brasil, Surinam, and Cayenne.—Is rather more than sixteen inches long : The back and tip of the upper mandible are black, the sides are whitish ; its base near the nostrils is dilated into three lobes, having a white arched line at the root ; the under mandible is black ; the head, wings, and tail are black ; the breast and belly are yellow and red, having a roundish black spot in the middle of the breast, and a transversely placed oblong black spot at the fore part of the belly ; the rump is scarlet ; the thighs are red.

552

5. Collared Toucan.—5. *Ramphastos torquatus*. 10.

Is black above, and whitish underneath, with a green belly which is red at its posterior part ; the neck is surrounded by a red collar.

R. torquatus. Lath. ind. orn. i. 137. n. 7.—Tucana mexicana torquata. Briss. av. iv. 421. n. 6.—Cochitenacatl. Fern. nov. hisp. 46.—Cochicat. Buff. ois. vii. 124.—Collared Toucan. Lath. syn. i. 330. n. 7.

Inhabits New-spain.—This species, which measures eighteen inches long, lives on the sea-coasts, and preys on fish : The upper mandible is white, and the under mandible black ; the head and neck are black, the under part of the throat being whitish with a few red spots and small black streaks ; the wings and tail are black ; the under tail coverts are red ; the thighs are reddish purple ; the legs and feet are greenish ash, with black claws.

553

6. Brazilian Toucan.—6. *Ramphastos piscivorus*. 4.

Is blackish, the temples, chin, throat, breast, and rump, being white ; the ventlet, and a bar on the belly, being red.

R. piscivorus. Lath. ind. orn. i. 136. n. 4.—Tucana brasiliensis gutture albo. Briss. av. iv. 413. n. 4. I 2

n. 3.—*Picus americanus*. Hern. mex. 697.—*Xochitenacatl tertia*. Raj. av. 178. n. 6.—Toucan à gorge blanche. Pl. enl. n. 262.—Toucan, Brazilian Pye. Edw. av. ii. t. 64. Bancr. guian. 163.—Brazilian Toucan. Lath. fyn. i. 327. n. 4.

Inhabits South America.—Is twenty-one inches long: The bill is yellow, having a scarlet spot at the tip, and the under mandible is blue; the head, back, belly, wings, tail, and thighs are black; the legs and feet are blue.

554

7. Red-beaked Toucan.—7. *Ramphastos erythrorhynchus*. 11.

Is blackish, the cheeks, chin, and throat, being white; the upper tail coverts are sulphur yellow; the under tail coverts, and a semilunar mark on the breast, are red.

R. erythrorhynchus. Lath. ind. orn. i. 136. n. 5.—*Tucana cayennensis*, gutture albo. Briss. av. iv. 416. n. 4. t. 31. f. 2.—Red-beaked Toucan. Edw. glean. t. 238. Lath. fyn. i. 328. n. 5.—Groffer Toucan. Wirfing. vog. t. 42.

Inhabits South America.—Is of the same size with the preceding, of which in all probability it is merely a variety: The base and ridge of the bill are yellow, the tip of the upper mandible and under part of the lower being red; the nostrils are edged with black; the orbits are bluish; the legs and feet are leaden coloured, with black claws.

555

8. Yellow-breasted Toucan.—8. *Ramphastos Tucanus*. 5.

Is blackish; the rump, the ventlet, and a bar on the belly, being yellow.

R. Tucanus. Lath. ind. orn. i. 136. n. 3. Borowsk, nat. ii. 97. n. 1. t. 6.—*R. rostro rubro*. Syft. nat. ed. i. 103.—*Tucana*. Marcgr. bras. 217.—*Tucana brasiliensis* gutture luteo. Briss. av. iv. 419. n. 5. t. 32. f. 1.—Toucan furinamenfis. Pet. gaz. t. 44. f. 13.—Toucan à gorge jaune. Buff. ois. vii. 119. Pl. enl. n. 307.—Yellow-breasted Toucan. Edw. glean. t. 329. Lath. fyn. i. 326. n. 3.

Inhabits South America.—Is nineteen inches long: The cheeks, chin, and scrag are orange; the bar on the belly and the ventlet are yellow with a reddish tinge; the rump is sulphur yellow; the bill is black, with the base grey; the legs, feet, and claws are lead coloured.

556

9. Red-bellied Toucan.—9. *Ramphastos picatus*. 6.

Is blackish, with a red belly and ventlet, yellow breast, black rump, and the tail quills are tipped with red.

R. picatus. Lath. ind. orn. i. 137. n. 6.—*R. rostro rubro apice nigro*. Syft. nat. ed. i. 103.—*Tucana*. Briss. av. iv. 408. n. 1.—Toucan à ventre rouge. Buff. ois. vii. 122. Preacher Toucan. Lath. fyn. i. 329. n. 6.—Toucan, or Brazilian Pye. Albin, av. ii. t. 25. Will. orn. angl. 128. t. 20.—*Pica brasiliensis*. Gefn. av. 800. Aldr. orn. i. 801. Raj. av. 44. n. 1.—*Nafutus simpliciter*. Klein, av. 38. n. 1.

Inhabits Guiana and Brasil.—Is somewhat more than twenty inches long: The bill is greenish yellow, and reddish at the tip; the tip of the tail is dotted with red.

557

10. Yellow-throated Toucan.—10. *Ramphastos dicolorus*. 7.

Is blackish; the breast, belly, rump, and ventlet, being red, and the chin yellow.

R. dicolorus. Lath. ind. orn. i. 135. n. 2.—*Toucana cayennensis* gutture luteo. Briss. av. iv. 411. n. 2. t. 31. f. 1.—Toucan à gorge jaune. Buff. ois. vii. 118.—Toucan à gorge jaune de Cayenne. Pl. enl. n. 269.—Yellow-throated Toucan. Lath. syn. i. 325. n. 2.

Inhabits Cayenne.—Is seventeen inches long: The bill is olive yellow, the base being black, and the edges red; the cheeks are sulphur yellow; the chin and throat are orange, edged with pale yellow.

558

11. White-throated Toucan.—11. *Ramphastos Toco*. 12.

Is blackish; the chin, throat, and rump, being white; the orbits, the ventlet, and a small circle on the breast, are red.

R. Toco. Lath. ind. orn. i. 135. n. 1.—*Toco*. Buff. ois. vii. 117. Pl. enl. n. 82. Lath. syn. i. 325. n. 1. t. 9.

Inhabits Cayenne.—Is nine or ten inches long, exclusively of the bill, which measures seven inches and a half in length; the bill is reddish yellow, with the base black, and the upper mandible has a black tip.

559

12. Yellow Toucan.—12. *Ramphastos luteus*. 13.

Is yellowish white, having two black streaks down each side of the neck.

R. luteus. Lath. ind. orn. i. 139. n. 13.—*Tucana lutea*. Briss. av. iv. 432. n. 11.—*Xochitenacatl alia*. Nieemb. hist. nat. 207. Jonst. av. 119. Will. orn. angl. 386.—*Aracari à bec noir*. Buff. ois. vii. 130.—Black billed Toucan. Lath. syn. i. 335. n. 12.

Inhabits New-spain.—Is about the size of a pigeon: The bill is black, the irides are yellow; the legs and feet are brown, with yellowish claws.

560

13. Blue Toucan.—13. *Ramphastos caeruleus*. 14.

Is blue, variegated with ash colour; the bill being longer than the body.

R. caeruleus. Lath. ind. orn. i. 139. n. 14.—*Tucana caerulea*. Briss. av. iv. 433. n. 12.—*Aracari bleu*. Buff. vii. 131.—*Altera Xochitenacatl*. Fernand. nov. hisp. 47. Nieemb. hist. nat. 209. Jonst. av. 126. 157. t. 56.—Blue Toucan. Lath. syn. i. 335. n. 13.

Inhabits New-spain.—This species, which is about the size of a pigeon, lives on the sea-coasts: The bill is yellow on the upper, and reddish yellow on the lower mandible; the eyes are black, with tawny or reddish yellow irides.

561

14. Doubtful Toucan.—14. *Ramphastos dubius*. 15.

The throat is blue. Lath. ind. orn. i. 139. n. 15.

Blue-throated Toucan. Lath. syn. i. 336. n. 14.

562

15. White Toucan.—15. *Ramphastos albus*. 16.

Is entirely white. Lath. syn. i. 336. n. 15.

These two last mentioned are very imperfectly known or described, and are introduced by Dr Gmelin on the authority of Mr Latham, who has omitted the White species in his Index ornithologicus.

VII. M O T M O T.—M O M O T U S.

The bill is strong, slightly incurvated, and ferrated at the edges: The nostrils are covered with feathers: The tongue is feathered: The tail is wedge-like: The feet are formed for walking; having three toes before, which are united almost their whole length, but not webbed, and one behind.

This genus is included both by Linnaeus and Dr Gmelin in the former, as a species of Toucan; but it differs very essentially from that tribe, in the structure of the feet, in the less disproportioned size of the bill, and in its general manners and way of life; it agrees however in the structure of the tongue, and in the bill being ferrated. These remarkable differences have not escaped the attention of Dr Gmelin, who expresses a doubt that this ought to be considered as a distinct genus, and, on the very respectable authority of Mr Pennant and Mr Latham, it is here placed as such. The name, *Motmot*, is adopted by Mr Pennant from Fernandez.—T.

563

1. Brazilian Motmot.—*Momotus brasiliensis*.

Is green, with a bluish green front, violet hind head, and black crown. Lath. ind. orn. ii. 140. n. 1.

Ramphastos Momota. Syft. nat. ed. Gm. 357. n. 8. Borowk. nat. ii. 98. n. 4.—*Momotus*. Briff. av. iv. 465. t. 35. f. 3.—*Momot*. Will. orn. angl. 386. t. 24. Raj. av. 164.—*Momot*, or Houtou. Buff. ois. vi. 430. t. 20.—*Momot du Bresil*. Pl. enl. n. 370.—*Brazilian Motmot*. Lath. syn. i. 338. t. 10.—*Guira Guainumbi*. Marcgr. bras. 193.—*Brazilian saw-billed Roller*. Edw. glean. t. 328.

Inhabits Brasil.—This species is about the size of a Blackbird in the body, but measures eighteen inches long, owing to the great length of the two middle tail quills; it lives in a solitary manner in the most sequestered parts of the forest, building a nest of dried grass on the ground, or in holes which have been deserted by Armadillos, laying two eggs each brood; it feeds on insects, and when in confinement it eats raw flesh, which it tears into small pieces and macerates in water; when taken it strikes violently with its bill; the voice is hoarse, tremulous, and weak. The general colour is a splendid olive green above, and rusty on the lower parts of the body, a few of the feathers on the breast being black with blue edges; the head is rather large in proportion, being black on the crown of the head, surrounded with blue; the corners of the mouth are garnished with longish moveable whiskers; the wing quills are blue; the tail is wedge-like and near twelve inches long, its two middle quills being much longer than the rest, and in some individuals these want webs for about two inches on each side

near

near the ends, which are webbed, and of an oval shape; the bill is of a moderate size, about two inches long, of a blackish colour, its base being flesh coloured; the legs and feet are black, with hooked claws.

564

β. Variegated Brazilian Motmot.—*M. brasiliensis variegatus*.

The plumage is variegated with green, tawny, blue, and ash colour. Lath. ind. orn. i. 140. n. 1. β.

Momotus varius. Briss. av. iv. 469. n. 2.—Yayauquitotl. Raj. av. 167. n. 19. Will. orn. 298.—Long-tailed Bird. Will. orn. angl. 386.—Variegated Motmot. Lath. syn. i. 340. n. 1. A.

Inhabits with the former, from which it differs chiefly in colour.

VIII. SCYTHROPS.—SCYTHROPS.

The bill is large, convex, sharp edged, channeled at the sides, and hooked at the point: The nostrils are rounded, naked, and placed at the base of the bill: The tongue is cartilaginous, and split at the point: The legs are formed for climbing, having two toes before and two behind.

This genus, of which only one species is hitherto known, holds a kind of middle rank between the Hornbill and Toucan; having a large bill, not quite so disproportioned as in the latter, and not serrated, and wanting the horny excrescence of the former, it likewise wants the feathery tongue of the Toucan.

565

1. Pittaceous Scythrops.—*Scythrops psittaceus*.

The only known species.

Scythrops novae-hollandiae. Lath. ind. orn. i. 141. n. 1.—Pittaceous Hornbill. Phil. bot. bay. t. p. 165.

Inhabits New-south-wales.—Is about the size of a Crow, but owing to the length of the tail it measures two feet two inches long: The bill is convex, with a ridge on the back like a boat's keel, and having longitudinal furrows at the sides; its edges are smooth, and the fore part is bent downwards; its colour is pale brown, turning yellowish towards the tip; the nostrils are placed at the base of the bill, are oval, naked, and surrounded with a red wrinkled skin; the orbits are naked, and, especially above the eyes, the skin is red and wrinkly; the tongue is a third part shorter than the bill, and is split into two at the end; the head, neck, and under parts of the body are pale blue-grey; the back, wings, and tail, are ash coloured, most of the feathers having dusky blackish tips; the tail is long and wedge-like, the two middle feathers measuring eleven inches, and the outer quill on each side little more than seven; a black bar crosses the whole near the end, and all the tips are white; the black tips of the feathers on the back and wings form several transverse bars on the wings; the wings are long, and when closed reach more than three fourths of the length of the tail; the legs are short and scaly, and, with the toes and hooked claws, are black. The above name is given

to

to this bird by Mr Latham ; we are not informed at all of its manners, either by him or the editor of Governor Phillips's voyage, but, from the meaning of the name, suppose that its voice is harsh, noisy, and importunate ; perhaps it might be named *Scolder* in English.—T.

IX. HORNBILL.—7. *BUCEROS*. 47.

The bill is large, convex, bent downwards, sharp edged, mostly jagged or ferrated outwardly, and having a large horny protuberance on the upper mandible at its base, or on the forehead: The nostrils are placed behind the base of the bill: The tongue is short and sharp pointed: The feet are formed for walking, having three toes forwards and one back toe.

This genus, with the Toucan, Motmot, and Scythrops, have all singularly disproportioned bills, the use of which is not apparent ; the Hornbill inhabits the same climates and the same kind of places in the old world that are occupied in the new by the Toucan, and so far as can be learned their modes of life are very similar.

566

1. Philippine Hornbill.—1. *Buceros bicornis*. 1.

The horny protuberance is flat, and divided at its fore part into two horns ; the bill is reddish. Amoen. ac. iv. 237.

B. bicornis. Lath. ind. orn. i. 142. n. 3.—*Hydrocorax philippenfis*. Briff. av. iv. 568. n. 2.—*Rhinoceros avis prima*. Will. orn. t. 17. f. 1.—Calao. Pet. gaz. 43. t. 28. f. 6. and t. 31. f. 1. Edw. av. ii. t. 281. f. D.—Philippine Hornbill. Lath. syn. i. 345. n. 3.

Inhabits the Philippine islands.—Is about the size of a common Hen : The bill is reddish, being black at the base of the lower mandible, and measures nine inches long ; the upper parts of the body are black, and the under parts white ; the wing quills have each a white spot ; the tail is longish, its ten middle quills being black, and the four outer quills on each side white ; the legs and feet are greenish.

567

β. Red-billed Philippine Hornbill.—1. β. *B. bicornis erythrorhynchos*.

The bill is vermilion red. Lath. ind. orn. i. 143. n. 3. A.

Calao, or Cayao. Phil. trans. xxiii. 1394. Lath. syn. i. 345. n. 3. A.

Inhabits with the former.—The belly in this variety is black ; the back and rump are brown-ash ; the head and neck are reddish, and the irides are white.

This bird is worshipped by the Indians ; its voice resembles the grunt of a Sow, and the bellowing of a Calf ; it lives much on fruits, which are swallowed whole, and, when the pulp is digested, the stones are cast up unhurt. The size of the second variety is not mentioned.

568

2. Abyssinian Hornbill.—2. *Buceros abyssinicus*. 5.

Is black: The horny protuberance has a flattened semicircular surface; the orbits, cheeks, temples, chin, and upper part of the throat, are covered with naked warty flesh, of a light blue colour, growing red when irritated.

B. abyssinicus. Lath. ind. orn. i. 143. n. 4.—Calao d'Abyssinie. Buff. ois. vii. 155. Pl. enl. n. 779.—Abyssinian Hornbill. Lath. syn. i. 347. n. 4.—Erkoom, Abba-gumba, Teir-el-naciba. Bruce, Abyss. v. t. p. 169.

Inhabits Abyssinia and Sennaar.—Is three feet ten inches long: The bill is black, with white edges; the protuberance at its base is of the same colour, its upper surface being semicircularly flattened, and somewhat projecting at the edges; about the base of the upper mandible, on each side, is a tuft of bristly hairs; the naked flesh about the face and neck resembles that of a Turkey cock, like that too it is light blue and flaccid at times, and grows red and tumid when the animal is irritated, or when attending his female in the breeding season; the general colour of the plumage is sooty black, the outer wing quills being white. This bird was first observed by the celebrated Abyssinian traveller Mr Bruce; it runs much on the ground, but when raised flies strongly and to a considerable distance; it lives chiefly on green beetles which infest the *Teff* plant, a species of bread corn cultivated in that country; it builds in large bushy trees, generally near churches, and has numerous broods, as far as eighteen; it has a putrid or rank smell, which has led some mistakenly to believe that it preys on carrion and dead bodies.

569

3. African Hornbill.—3. *Buceros africanus*. 6.

Is black: The protuberance is straightish and pointed.

B. africanus. Lath. ind. orn. i. 143. n. 5.—Hydrocorax africanus. Briss. av. iv. 570. n. 3.—Rhinceros avis secunda. Will. orn. t. 17. Mus. beller. t. 9. n. 7.—Brac, Calao d'Afrique. Buff. ois. vii. 154.—Oiseau trompette, Trompette de Brac. Labat, voy. iv. 160. t. p. 161.

Inhabits Africa.—Is about the size of a Turkey: The bill is partly red and partly yellow, the edges of the mandibles being black; the general colour is black, and the head is slightly crested.

570

4. Malabar Hornbill.—4. *Buceros malabaricus*. 7.

Is black above, and white underneath: The protuberance is rounded above, sharp edged forwards, and the hinder part reaches to the crown of the head, behind the eyes.

B. malabaricus. Lath. ind. orn. i. 143. n. 6.—Calao de Malabar. Buff. ois. vii. 149. t. 8. Pl. enl. n. 873? Edw. glean. t. 281. f. D.—Pied Hornbill. Lath. syn. i. 349. n. 6. t. 11.

Inhabits India.—Is two feet and a half long, sometimes three feet; in confinement at Paris this bird eat raw flesh, rats, and small birds: The bill is dirty yellowish white, and the greater part of the protuberance or false bill, which is extremely thin, is black; the head has a pendant crest behind, and at the base of the under mandible some plaits of naked white skin; the upper parts of the body, the head, neck, and fore part of the breast are black with a slight violet and greenish tinge; the under parts are dirty white; some of the wing coverts have irregular brown edges; the outer quill

feathers of the wings are white at the end; the four middle tail quills are black, all the rest being white, except only at the base, which is black; the thighs are dirty white and feathered below the knees; the legs and feet are thick, strong, scaly, and black, with long, hooked, bluntish claws.

571 β. Latham's Malabar Hornbill.—*B. malabaricus lathamii*.

The two or four middle tail quills are black, all the rest being white with black bases. Lath. ind. orn. i. 143. n. 6. β. Syn. 350.

572 γ. Sonnerat's Malabar Hornbill.—*B. malabaricus sonnerati*.

The tail quills are all white except the middle two, which have black bases. Lath. ind. orn. i. 144. n. 6. γ. Syn. sup. 69.

Calao de Coromandel. Sonner. voy. ii. 215. t. 121.

These two varieties are added on the authority of Mr Latham: The first differs so slightly from the one described immediately before from Buffon as scarcely to deserve being attended to. The second variety introduced from Sonnerat might perhaps be reckoned a distinct species, as the protuberance on the bill is shaped like an egg, and the chin and all the wing quills are white.

573 5. Indian Hornbill.—5. *Buceros Hydrocorax*. 2.

The protuberance is flattened forwards, and extends in a round form to the crown of the head; the neck is surrounded by a white collar; the belly is tawny.

B. Hydrocorax. Lath. ind. orn. i. 144. n. 7.—*Hydrocorax*. Briss. av. iv. 556. n. 1. t. 45.—*Corvus marinus*. Clus. exot. 106.—*Corvus indicus*. Bont. jav. 62. Will. orn. 86. t. 17. Raj. av. 40. n. 7.—*Corvus torquatus*. Klein, av. 58. n. 2?—*Corbeau indien*. Salern. orn. 91. n. 8. t. 9. f. 3. Buff. ois. iii. 41.—Calao des Moluques. Buff. ois. vii. 147. Pl. enl. n. 283.—Indian Raven. Will. orn. angl. 126. n. 7.—Indian Hornbill. Lath. fyn. i. 351. n. 7.

Inhabits the Molucca islands.—This species is two feet four inches long; it is frequently domesticated, and is useful for destroying rats and mice; in its state of nature it feeds on Nutmegs, from which its flesh acquires a highly aromatic flavour. The protuberance on the bill is blackish ash, growing whiter backwards; the crown of the head is blackish; the sides of the head, the throat, and the wings are black; the hind head and scrag are chestnut; the back, shoulders, rump, wing coverts, and tail coverts, are brown; the breast and belly are blackish, the hinder part of the belly being yellowish; the tail quills are dirty whitish ash; the legs and feet are short and brown-grey, with black claws.

574 6. Rhinoceros Hornbill.—6. *Buceros Rhinoceros*. 3.

The protuberance is sharp pointed, and turned upwards at its fore part.

B. Rhinoceros. Lath. ind. orn. i. 141. n. 1.—*Rhinoceros avis*. Bont. jav. 63. t. 64. Olear. mus. t. 15. f. 4. Worm. mus. 293. Aldr. orn. i. 84. Bessler. mus. t. 20.—*Corvus indicus cornatus*. Raj. av. 40. n. 8.—*Hydrocorax indicus*. Briss. av. iv. 571. n. 4.—Calao Rhinoceros. Buff. ois. vii. 161. Pl. enl. n. 934.—Topau. Borowsk. nat. ii. 98. t. 7.—*Rhinoceros bird*, or Horned Indian Raven. Will.

Will. orn. angl. 127. t. 17. Edw. glean. t. 281. f. B.—Rhinceros Hornbill. Lath. syn. i. 342. n. 1. sup. 69.—Great Hornbill, or Rhinceros bird. Nat. misc. N^o. xiv. t. 41.

Inhabits India, Java, Sumatra, and the Philippine isles.—This species, which measures three feet long, and is about the size of a Turkey, preys on rats, mice, and carrion, having a most voracious appetite, and is said to follow the hunters on purpose to feed on the offal and intestines of their game : The bill is whitish yellow, and measures ten inches long, the base of the upper mandible and upper surface of the horn or protuberance being red ; the horn is eight inches long, its under surface is of the same colour with the bill, and its upper surface is marked with a longitudinal black line ; the body is black, its under and posterior parts being dirty white ; the tail is twelve inches long, of a dirty white colour with a broad black bar near the end ; the under tail coverts are black and white ; the legs, feet, and claws, are dusky grey.

575

7. Helmet Hornbill.—7. *Buceros galeatus*. 8.

Has a straightish bill, the protuberance being almost square, its fore part flat and hinder part rounded.

B. galeatus. Lath. ind. orn. i. 142. n. 2.—Calao à casque rond. Buff. ois. vii. 159. Pl. enl. n. 933.—Semenda. Aldr. orn. i. 833.—Helmet Hornbill. Edw. glean. t. 281. c. Lath. syn. i. 343. n. 2.

Inhabits Asia.—The bill is eight inches long, and of a conical form, being mostly red ; the protuberance rises to a great height : It would appear that hitherto only the bill and head of this species have been seen by naturalists ; in the specimen possessed by Mr Latham the bill is surrounded with black feathers at its base. Buffon supposes that this should be among the largest of the genus, from the size of the head and bill ; in the specimen belonging to the French royal cabinet the colour of the bill is a tarnished brownish red, while that delineated by Mr Edwards is vermilion red.

576

8. Panayan Hornbill.—8. *Buceros panayensis*. 9.

The protuberance is sharp edged above, and flattened laterally ; the body is greenish black above, and reddish brown underneath.

B. panayensis. Lath. ind. orn. i. 144. n. 8.—Calao eifelé. Sonner. it. 122. t. 82. 83.—Calao de Panay. Buff. ois. vii. 145. Pl. enl. n. 780. 781.—Panayan Hornbill. Lath. syn. i. 353. n. 8.

Inhabits the island of Panay in India.—Is about the size of a Raven : The bill is very long, much arched, ferrated or toothed at the edges, sharp pointed, and compressed laterally ; it is transversely wrinkled, and longitudinally furrowed for two-thirds of its length, the furrows being orange coloured, and the intermediate projections brown ; the orbits are brown and naked, and the eyelids have stiff bristly eyelashes ; the irides are whitish : In the *male* the head, neck, back, and wings are greenish black ; in the *female* the head and neck are white, except a large triangular greenish black spot, on each side, extending from the base of the bill to beyond and below the eye : In both the upper part of the breast is bright brown-red, the belly, ventlet, and thighs, being dark brown-red ; the tail has ten quill feathers which are reddish yellow from the base to beyond the middle, the extreme third of their length being black ; the legs and feet are lead coloured.

577

9. Manilla Hornbill.—9. *Buceros manillensis*. 10.

The bill is not ferrated, and has a slight protuberance; the body is blackish brown above, and dirty white beneath.

B. manillensis. Lath. ind. orn. i. 145. n. 9.—Calao de Manille. Buff. ois. vii. 144. Pl. enl. n. 891.—Manilla Hornbill. Lath. syn. i. 354. n. 9.

Inhabits Manilla, one of the Philippine islands.—Is about twenty inches long: The bill is less bent, and its tip is sharper than in the other species of this genus, and the protuberance on the bill is scarcely any thing more than a raised sharp-edged longitudinal ridge, or keel-like prominence; the head and neck are yellowish white, waved with brown, and having a black spot on each temple, which in some individuals extends down to the chin uniting with the mark on the opposite side; the tail has a reddish bar across the middle.

578

10. Tock.—10. *Buceros nasutus*. 4.

The bill is black, and has no protuberance; the tail-quills are white at the base and tips.

B. nasutus. Lath. ind. orn. i. 145. n. 10.—*Hydrocorax senegalensis melanorhynchos*. Briff. av. iv. 573. n. 5. t. 46. f. 1.—*Crotophaga*. Fork. faun. arab. 2. n. 4.—Tock jeune. Buff. ois. vii. 141.—Calao à bec noir. Pl. enl. n. 890.—Black-billed Hornbill. Lath. syn. i. 354. n. 10.

579

β. Red-billed Tock.—10. β. *B. nasutus erythrorhynchos*.

The bill is red. Lath. ind. orn. i. 145. n. 10. β.

Hydrocorax senegalensis erythrorhynchos. Briff. av. iv. 575. t. 46. f. 2.—Tock adulte. Buff. ois. vii. 142.—Calao à bec rouge. Pl. enl. n. 260.—Red-billed Hornbill. Lath. syn. i. 355. n. 10. A.

Inhabits near the river Senegal, and other hot regions of Asia and Africa.—These two varieties are said by the Count de Buffon to be the same bird at different periods of life; the former, or Black-billed Tock, being the young bird, while the latter is the same bird in its adult state: In the former the plumage is grey-ash, the wing quills being black in the middle and white at both ends: In the latter it is blackish on the upper parts of the body, the wings, and the tail, the lateral tail quills having white tips; the under parts, the head, and neck being whitish: In the younger birds the bill, legs, and feet, are black, growing reddish in the older birds: In both the bill is large and bent downwards, but has no protuberance. It is about the size of a Woodpecker, being about twenty inches long; it feeds on fruits, and in confinement eats bread or almost any thing: The young bird is very stupid, easily caught, and readily becomes tame.

580

11. White Hornbill.—11. *Buceros albus*. 11.

The bill is black and very much bent downwards, having no protuberance; the body is entirely white, with black legs and feet.

B. albus. Lath. ind. orn. i. 146. n. 11.—White Toucan. Hawkesw. voy. —White Hornbill. Lath. syn. i. 357. n. 11.

Inhabits

Inhabits the Ladrone islands.—This species is about the size of a Goose; the neck is small and about a foot long: The only individual of this species hitherto seen, was caught at sea between the islands of Tinian and Pulo-timoen; it is very imperfectly described.

581

12. Wreathed Hornbill.—12. *Buceros obscurus*. 12.

The protuberance is rounded above, and divided into seven or eight lobes or plaits; the body is black, with white tail quills.

B. plicatus. Lath. ind. orn. i. 146. n. 12.—Indian Raven. Will. orn. angl. t. 78. Dampier's voy. iii. 165.—Wreathed Hornbill. Lath. syn. i. 358. n. 12. sup. 70.

Inhabits the island of Ceram, and New-guinea.—Is about the size of a Crow: The bill is bent, and measures six or seven inches long, its edges being smooth; the protuberance on the fore-head rises about an inch: In some individuals the neck is saffron yellow.

582

β. Ceylon Wreathed Hornbill.—*B. obscurus zeylanensis*.

The protuberance has five lobes; the body is clouded with black and grey, having a black tail. Lath. ind. orn. i. 146. n. 12. β. Syn. sup. 71. § 2.

Inhabits Ceylon.—Mr Latham suspects that this may be a young bird of the Wreathed species. The bill is yellow, having a naked blue spot at the base of the under mandible; the primary wing quills are black, with white tips; the outer tail quill on each side is half white half black; the crown of the head is black; the legs and feet are strong and bluish.

583

13. Gingi Hornbill.—*Buceros ginginianus*.

The bill is bent and laterally compressed, having a pointed protuberance on the fore-head; the body is grey above and white beneath. Lath. ind. orn. i. 146. n. 13. Syn. sup. 71.

Calao de Gingi. Sonner. voy. ii. 214. t. 121.

Inhabits the Carnatic.—Is two feet long: The bill from the base to about the middle, and the protuberance are black, the rest being white, and its edges are serrated; the wing quills have white tips; the lateral tail quills are black, having a brown cross bar near the end, and white tips; the middle tail quills are grey, with a black bar near the end; the cheeks have each an oval black bar under the orbits; the legs and feet are black.

584

14. Eastern Hornbill.—*Buceros orientalis*.

The bill is convex and ridged above, its base being protuberant; the orbits are naked, wrinkly, and ash coloured; the body, wings, and tail, are blackish. Lath. ind. orn. i. 147. n. 14.

New-holland Hornbill. Lath. syn. sup. 72.

Inhabits New-holland.—Is scarcely so large as a Jay: The nostrils are situated near the base of the bill, and are open.

585

15. Grey Hornbill.—*Buceros griseus*.

The protuberance is sloping at its fore part and abrupt behind; the body is grey.
Lath. ind. orn. i. 147. n. 15. Syn. sup. 72.

Inhabits New-holland.—The crown of the head is black; the bill is yellow, its base having a black spot; at the corner of each eye is a tuft of bristles, and behind each eye a naked blue spot; the wing coverts are variegated with black; the wing quills have white tips.

586

16. Green-winged Hornbill.—*Buceros chloropterus*.

The protuberance is abrupt; the body is black, with greenish wings.

B. viridis. Lath. ind. orn. i. 147. n. 16.—Green-winged Hornbill. Lath. syn. sup. 73.

Its place uncertain.—The bill is yellowish, having a naked bluish white spot at the base of the under mandible; the outer tail quills, the bases of the wing quills, and the belly, are white; the legs and feet are bluish. Perhaps this might be considered as a variety of the preceding species.

X. BEEF-EATER.—8. *BUPHAGA*. 48.

The bill is strong, thick, straight, and somewhat squared; the mandibles being protuberant, chiefly at the sides; the feet are formed for walking.

The Latin name of this genus, as well as its English and French appellations, is derived from its custom of picking holes in the backs of cattle on purpose to get at the larvae of insects of the Gad-fly kind which are there deposited.

587

1. African Beef-eater.—1. *Buphaga africana*. 1.

Only this species hitherto known.

B. africana. Briss. av. iv. 457. n. 1. t. 42. f. 2.—Pic-boeuf. Buff. ois. iii. 175. t. 14. Pl. enl. n. 293.—African Beef-eater. Lath. syn. i. 359. n. 1. t. 12.

Inhabits Africa, near the Senegal.—Is about the size of the Crested Lark, measuring eight inches and a half long: The body is brown-grey above, with a yellowish rump, the under parts being likewise yellowish; the bill, which is not quite an inch long, is sometimes yellowish with a red tip, and sometimes entirely black; the tail is wedge-like, having twelve brown-grey quills which are narrow at the ends, the outer quills on each side being reddish on their inner webs; the legs and feet, with the claws, are brown.

XI. ANI.—9. *CROTOPHAGA*. 49.

The bill is compressed laterally, protuberantly ridged on the
back

back of the upper mandible, bent, and almost oval; the upper mandible having an angular projection on its edge at each side: The nostrils are round and open.

This genus is named from its habit of feeding on certain insects: The feet in three of the species are fitted for climbing; the tongue is flattened laterally and becomes slender at the end. Mr Ray considers the first species as congeneric with Parrots.

588

1. Lesser Ani.—1. *Crotophaga Ani*. 1.

Of a blackish-violet colour, the edges of the feathers having a coppery green cast. Lath. ind. orn. i. 148. n. 1.

Crotophagus. Briff. av. iv. 177. t. 18. f. 1. Ger. orn. ii. 53. t. 190. Borowfk. nat. ii. 101. t. 8.—*Crotophagus ater*. Brown, jam. 474.—*Monedula nigra garrula*. Sloan. jam. ii. 298. t. 256. f. 1.—*Ani*. Marcgr. braf. 193. Will. orn. 120. Raj. av. 35. n. 10. and 185. n. 129.—*Ani des savanes*. Buff. ois. vi. 420.—*Lesser Ani*. Lath. syn. i. 360. n. 1. t. 13.—*Petit bout-de-petun*. Pl. enl. n. 102. f. 2.—*Cacalototl*. Raj. av. 168. n. 27.—*Razor-billed Blackbird*. Catesb. carol. app. t. 3.

Inhabits the warmer parts of America and the West India islands.—This species, which is about thirteen inches and a half long, is gregarious and builds large nests, in which five or six females lay their eggs twice every year, each taking care of her own particular brood, and covering them carefully with leaves; the eggs are of a sea green colour, spotted at each end: It feeds on fruits, seeds, small serpents, lizards, and other reptiles, worms, insects, particularly grasshoppers, and in the beginning of spring on the *Acarus ricinus*, a species of Tick, at that time very numerous on the backs of cattle; the cattle at this season lie down to give the Ani an opportunity of picking off the ticks. The general colour is black, with some violet shades all over the body, the feathers on the middle of the back and of the wing coverts being slightly edged with dark shining green; the tail consists of ten quills, is wedge-like, and measures more than half the whole length; the tip of the upper mandible is hooked; the nostrils are oval; the tongue is fleshy and whole at the tip; the legs and feet are black.

589

2. Greater Ani.—2. *Crotophaga major*. 3.

Of a blackish-violet colour, the feathers having green edges; the wing quills being dusky green. Lath. ind. orn. i. 148. n. 2. Syn. i. 362. n. 2.

Crotophagus major. Briff. av. iv. 180. t. 18. f. 2.—*Ani des palétuviers*, *Bout-de-tabac*, *Aman-goua*. Buff. ois. vi. 423. t. 19. Salern. orn. 73. n. 10.—*Greater Ani*. Lath. syn. i. 362. n. 2.—*Grand bout-de-petun*. Pl. enl. n. 102. f. 1.

Inhabits the same countries with the former.—This species measures eighteen inches long, and is considerably larger than the former species, which it resembles very much in colour, manners, and mode of life, except that the former inhabits the woods, and this keeps chiefly to the cultivated fields, and the sides of the sea or of salt marshes: The green edges of the feathers are likewise more remarkable in this than in the former species; it is readily made tame, but both this and the former species have an unpleasant odour, and their flesh is not eatable.

590

3. Varied Ani.—*Crotophaga varia*.

Is varied, with black and red. Lath. ind. orn. i. 149. n. 3.

Crotophagus varius indicus. Gerin. orn. ii. 54. t. 192.

Its place uncertain.—This species measures eleven inches long; the bill is black, bent downwards, and is weaker than in the other species of the genus; the head, throat, and breast, the larger, and the middle coverts of the wings, and the tail are black, the rest of the body being tawny red; the tail is long; the legs and feet are tawny brown. Gerini says that this bird was formerly kept at Versailles, whence a picture done from the life was sent to Florence; it is somewhat remarkable that this circumstance should have escaped Buffon.

591

4. Walking Ani.—3. *Crotophaga ambulatoria*. 2.

The feet are formed for walking.

Cr. ambulatoria. Lath. ind. orn. i. 149. n. 4. Borowk. nat. ii. 102. n. 2.—Walking Ani. Lath. syn. i. 363. n. 3.

Inhabits Surinam.—This species resembles the Lesser Ani in every respect except the structure of its feet, having three toes forwards and one back toe, while all the other species of the genus have climbing feet; like the Lesser Ani likewise the tail has ten quill feathers. Mr Latham considers this as rather a doubtful species.

XII. WATTLE T.—10. *GLAUCOPIS*.

The bill is arched, and bent downwards; the under mandible being shorter than the upper, and having fleshy wattles at its base: The nostrils are depressed, and almost covered by a somewhat cartilaginous membrane: The tongue is somewhat cartilaginous, its tip being split and fringed: The feet have three fore toes and only one behind, being formed for walking.

592

1. Cinereous Wattlet.—1. *Glaucopis cinerea*. 1.

The only known species.

Callaeas cinerea. Lath. ind. orn. i. 149. n. 1.—Cinereous Wattle-bird. Lath. syn. i. 364 n. 1. t. 14.

Inhabits New-zealand.—This bird is about the size of a Jay, and measures fifteen inches long; it walks mostly on the ground, and very seldom perches on trees; it feeds on berries, insects, and even preys on small birds; the voice is whistling and humming, being not unpleasant; the flesh is excellent. The bill is black; the body is dark ash, with a black face; the tail is long, wedge-like, and
consists

confists of twelve quills; at the base of the lower mandible are two wattles on each side, the more advanced of which is blue, and the hinder are orange yellow; the irides are bright blue; the legs are long and blackish, and the hinder claw is considerably longer than the rest. Mr Latham, in his Index, has thought proper to change the Latin name of the genus, as given above from Dr Gmelin's edition of the *Systema naturae*, to *Callaeas*, but without assigning any reason.

XIII. CROW.—II. *CORVUS* S. 50.

The bill is convex and sharp edged: The nostrils are covered by reversed bristly feathers: The tongue is cartilaginous, and cleft at the tip: The feet are formed for walking.

This genus is to be found in every climate; its several species are extremely prolific, remarkably social and gregarious, and very clamorous; they build mostly in trees, some species forming vast associations, and lay usually six eggs each brood; they are promiscuous feeders, eating both of animal and vegetable food. Mr Latham adds to the Linnaean character, that the bill has a small tooth-like process on each side near the point; the middle toe is joined to the outmost as far as the first joint.

593

1. Hottentot Crow.—1. *Corvus hottentottus*. 1.

Is greenish black, with an equal tail, and having very long whiskers.

C. hottentottus. Lath. ind. orn. i. 156. n. 12. Borowsk. nat. ii. 103. n. 2.—*Monedula capitis bonae-spei*. Briss. av. ii. 33. n. 10. t. 2. f. 2. Ger. orn. ii. 36. t. 148.—*Choucas moustache*. Buff. ois. iii. 79.—*Choucas du Cap*. Pl. enl. n. 226.—Hottentot Crow. Lath. syn. i. 380. n. 10.

Inhabits at the Cape of Good Hope.—Is eleven inches long, being about the size of a Thrush: The whiskers, which are black and near three inches long, rise from the base of the upper mandible above the nostrils, and similar whiskers, but stiffer and shorter, are situated on each side at the angle of the mouth; the feathers of the scrag, or hind part of the neck, are longer and narrower than the rest, and hang loosely.

594

2. Raven.—2. *Corvus Corax*. 2.

Is black, glossed with bluish on the back; the tail is roundish.

Corvus. Gess. av. 334. Aldr. orn. i. 684. t. p. 685. Johnst. av. 38. t. 16. Raj. av. 39. n. 1. Briss. av. ii. 8. n. 1.—*C. maximus*. Scop. an. i. 34. n. 45.—*C. Corax*. Lath. ind. orn. i. 150. n. 1.—Kerp. Faun. suec. n. 85. Faun. groenl. 62. n. 38.—*Corbeau*. Buff. ois. iii. 13. t. 2. Pl. enl. n. 495.—*Rabe*. Gunth. nest. t. 71. Frisch. av. t. 63.—*Raven*. BRIT. ZOOL. n. 74. Arct. zool. ii. 245. n. 134. Alb. av. ii. 19. t. 20. Lewin. brit. b. i. t. 33. Id. t. vi. f. 1. Will. orn. 121. t. 18. Ruffel, alep. 69. Lath. syn. i. 367. n. 1. sup. 74.

Inhabits all Europe, Siberia, Kamtschatka, and North America as far south as New-spain.—This is the largest species of the genus, measuring two feet two inches in length, and weighing three pounds: It feeds on carrion, birds, eggs, small birds, and sick or weakly lambs, sheep, fish, shellfish, and wild berries, and, when pressed with hunger, will even devour dried skins, and excrements;

it is greedy, thieving, and clamorous, and may be taught to speak; it builds in high trees or lofty rocks, pairing in March; the female lays five or six bluish green eggs spotted with brown in April, these the male sits on by day and the female in the night time. The Raven is a long liver, and has a very quick sense of smelling; its flesh is eaten by the Greenlanders, who make clothes of the skins, using the wings for brushes, and forming the split quills into fishing lines. The tail is slightly bent downwards, and has a small tooth on each side near the point; the voice is a short rough croak, repeated at intervals.

595

β . Pied Raven.—2. β . *C. Corax varius*.

Has a few scattered white feathers. Lath. ind. orn. i. 150. n. 1. β . Syn. i. 369. n. 1. A.

Corvus varius. Briff. av. ii. 12. n. 1. A.—Cacalotl. Fern. nov. hisp. 48.

Inhabits Mexico.—This differs only from the foregoing by the circumstance mentioned in the character.

596

γ . White Raven.—2. γ . *C. Corax albus*.

Is entirely white. Lath. ind. orn. i. 151. n. 1. γ . Syn. i. 369. n. 1. B.

Corvus albus. Briff. av. ii. 12. n. 1. B. Schwenkf. av. filef. 245. Ger. orn. ii. 32. t. 141.

Inhabits Norway.

597

δ . Northern Raven.—2. δ . *C. Corax borealis*.

Is variegated with black and white. Lath. ind. orn. i. 151. n. 1. δ .

Corvus feroensis. Brunn. orn. bor. 8.—*Corvus borealis*. Briff. av. vi. app. 33. t. 2. f. 1.

Inhabits the Feroe islands.—This variety is a little smaller than the rest, measuring only two feet long: The body is bright black, its under parts being white; the head is white, variegated with black spots; the breast is black; the wing quills are white, the outermost being edged with blackish; the tail quills are variegated with black and white.

598

3. White-chinned Crow.—3. *Corvus clericus*. 20.

Is black, having a white chin; the base of the bill is ash coloured. Mus. carlf. i. t. 2.

Lath. syn. i. 152. n. 4. β .

Inhabits Sweden.—The colour on the greatest part of the body is sooty black, the head, neck, and middle of the back, being clear black, and the upper surfaces of the wing and tail quills having a violet tinge. This bird is very rare even in Sweden; Dr Gmelin does not mention its size, but suspects it may belong to the Raven species; Mr Latham ranks it as a variety of the Carrion Crow, and says it is of the same size with it.

599

4. Southern Crow.—4. *Corvus australis*. 21.

Is black, with brownish-black wings; the feathers of the chin being loose.

C. australis. Lath. ind. orn. i. 151. n. 2.—South-sea Raven. Lath. syn. i. 369. n. 2. Cook, last voy. i. 109.?

Inhabits

Inhabits the Friendly islands in the Pacific ocean.—Is nineteen inches long, of which the tail measures eight : The bill is very strong at the base, and is flattened at the sides.

600

5. White-necked Crow.—*Corvus albicollis*.

Is blackish, with brownish wing coverts ; having a broad semilunar white patch on the scrag. Lath. ind. orn. i. 151. n. 3. Syn. sup. 75. § 2.

Its place uncertain, perhaps Africa.—Is almost as large as the Raven, measuring twenty inches in length : The bill is three inches and a quarter long, being ridged on the back of the upper mandible, almost like that of the Ani, having its base covered with reflected bristly feathers ; the broad white semilunar patch almost covers the whole back of the neck, it grows narrower as it comes forwards, and its narrow ends almost meet before ; the tail has twelve quills, and the wings reach almost to the end of the tail ; the legs and feet are black, and extremely rough. Mr Latham suspects it may be a variety of the Southern Crow.

601

6. Carrion Crow.—5. *Corvus Corone*. 3.

Is entirely black, glossed with violet-blue ; the tail is rounded, its quills being pointed at the ends, Faun. suec. n. 86. Scop. an. i. 35. n. 36.

C. Corone. Lath. ind. orn. i. 151. n. 4.—*Cornix*. Gefn. av. 320. t. 321. Aldr. orn. i. 734. t. p. 736. Raj. av. 39. n. 2. Briff. av. ii. 12. n. 2.—*Corbine*, *Corneille noir*. Buff. ois. iii. 45. t. 3. Pl. enl. n. 483.—*Blaue Raage*. Brunn. n. 29.—*Carrion Crow*. BRIT. ZOOL. n. 75. Arch. zool. ii. 246. n. 135. Albin, av. ii. t. 21. Will. orn. angl. 122. t. 18. Lewin, brit. b. i. t. 34. Lath. syn. i. 370. n. 3.

Inhabits Europe, Siberia, North America, the Philippines, New-guinea, New-holland, New-caledonia, and Madeira.—Is less than the Raven, measuring eighteen inches long, and weighing from twenty to twenty-two ounces ; it preys on carrion, and even on small animals, and such larger ones as are weak and sickly, likewise feeding on fruits, seeds, and grain, from which last circumstance it is sometimes extremely destructive in corn fields ; it builds in woods, on the branches of trees, laying five or six eggs very like those of the Raven. The whole plumage is bluish black, the female being duller in the colour.

602

β. Varied Carrion Crow.—5. β. *C. Corone varius*.

Is varied with white in some parts. Lath. ind. orn. i. 152. n. 4. γ.

Corvus varius. Brun. orn. bor. 8. n. 28.—*Cornix varia*. Briff. av. ii. 15. n. 2. A.—*Bunte Kraehe*, *Schekige Kraehe*. Frisch, av. t. 66.—*Variegated Crow*. Lath. syn. i. 370. n. 3. A.

Inhabits the Feroe islands.—The throat, under part of the neck, middle of the belly, primary wing quills, and lower part of the cheeks, are white ; but different individuals are variegated differently.

603

γ. White Carrion Crow—5. γ. *C. Corone albus*.

Is entirely white. Lath. ind. orn. i. 152. n. 4. δ.

Cornix alba. Briff. av. ii. 15. n. 2. B.—*White Crow*. Lath. syn. i. 372.

Inhabits Iceland.

7. Rook.—6. *Corvus frugilegus*. 4.

Is black, with a somewhat ash coloured front; the tail being roundish at the end.
Faun. suec. n. 87. It. oel. 67.

C. frugilegus. Lath. ind. orn. i. 152. n. 5. Kram. el. 333. n. 2. Borowsk. nat. ii. 105. n. 4.—*Cornix frugilega*. Aldr. orn. i. 751. t. p. 753. Raj. av. 39. A. 3. Briff. av. ii. 16. n. 3.—Freux, Frayonne. Buff. oif. iii. 55. Pl. enl. n. 484.—Schwarze Kraehe. Frisch, av. t. 64.—Roka. Faun. suec. n. 87.—Rook. BRIT. ZOOL. i. n. 76. Arct. zool. ii. 250. n. A. Albin. av. ii. t. 22. Will. orn. 123. t. 18. Lath. syn. i. 372. n. 4. sup. 76. Lewin, brit. b. i. t. 35.

Inhabits Europe and Western Siberia.—This species, which is about eighteen inches long, and weighs nearly twenty-two ounces, is chiefly distinguished from the Carrion Crow by the following circumstances*; the ends of the tail quills are broad and rounded, instead of being sharpish; the bill is longer, straighter, more slender, weaker, and not so intensely black; the nostrils and base of the bill being naked and whitish, from being frequently thrust into the ground in search of food; the extent of the wings is rather more than in the Carrion Crow. The Rook flies abroad in large flocks, principally in the morning and evening, being more dispersed during the day in quest of food; vast numbers of them perch at night on trees, in which they build generally in large communities called Rookeries; they feed principally on worms, the larvae of insects, especially those of the beetle tribe, and likewise on grain, and other feeds and vegetables, hence they become destructive to corn, turnips, potatoes, and other crops, but there is reason to believe that all the harm they do to farmers is amply repaid by their destruction of noxious vermin; they are extremely clamorous and noisy, especially about their habitations; the eggs resemble those of the Raven; the younger birds, called Branchers, before they are thoroughly fledged are very good eating. The black colour of the Rook is mixed with a purplish shade, and the tail on part of its upper surface has a dull green tinge.

8. Hooded Crow.—7. *Corvus Cornix*. 5.

Is dark ash coloured; with black head, chin, wings, and tail.

C. Cornix. Lath. ind. orn. i. 153. n. 7. Scop. an. i. 35. n. 37.—*Cornix cinerea*. Briff. av. ii. 19. n. 4. Gefn. av. 332. Aldr. orn. i. 754. t. p. 755. Raj. av. 39. A. 4.—*Cornix nigra*. Ger. orn. ii. 35. t. 146. 147.—*Mullachia*. Cett. uc. fard. 71. Zinnan. uov. 70. t. 10. f. 61.—*Kraka*. Faun. suec. n. 88.—*Krage*. Leem. 239.—*Nebel Kraehe*. Frisch, av. t. 65.—*Graue Krau, Krauveitl*. Kram. el. 333.—*Corneille mantelée*. Buff. oif. iii. 61. t. 4. Pl. enl. n. 754. 755.—*Royston Crow*. Alb. av. ii. t. 23. Will. orn. angl. 124. t. 77. Ruffel. alep. 69.—*Hooded Crow*. BRIT. ZOOL. i. n. 77. Arct. zool. ii. 251. B. Flor. SCOT. i. 20. t. 2. Lewin, brit. b. i. t. 36. Lath. syn. i. 374. n. 5. sup. 77.

Inhabits Europe and Asia.—Is about the size of the Rook, measuring twenty-two inches in length: This species breeds in the northern parts of England and in Scotland, and migrates more to the southwards before winter; in Italy it breeds in the forests near the foot of the Alps and Apennines, and spreads over the plains about the month of October; it is gregarious, and feeds almost on every thing eatable, carrion, smaller quadrupeds, birds, shell-fish, frogs, snails, insects, and their larvae, and very rarely on berries, grain, and seeds; it is very unjustly proscribed in Sweden, as it cleans the fields of
vast

* These are first attentively noticed by the celebrated Mr Pennant in his Arctic Zoology.—T.

vast multitudes of the larvae of various insects, which do infinite mischief by lodging under the roots of grafs and other plants. It usually sits with its face opposed to the wind; and is very readily caught, during snow, by means of a paper snare: The eggs are bluish green, variegated with a number of blackish-brown spots.

606

9. Daurian Crow.—8. *Corvus dauricus*. 22.

Is black, with a bluish-black crown, the scrag, throat, and belly, being white. Pall. it. iii. 694. n. 8.

C. dauricus. Lath. ind. orn. i. 154. n. 8. Georg. it. 165.—Corneille de Senegal. Buff. ois. iii. 67. Pl. enl. n. 327.—Chinese black Raven. Osb. voy. i. 377.—White-breasted Crow. Tryer, trav. 21. Kolb. cape, ii. 146. Lath. syn. i. 376. n. 6. t. 15.

Inhabits China, Mongolia, Persia, near lake Baikal, near the Lena, the island of Jvanna (Johanna?) and Senegal.—Is rather more than a foot in length, and resembles the Jackdaw in size and general appearance: It is gregarious, and lives on insects, and various fruits. The tail and wings have a shining greenish gloss; according to Mr Latham, the nape of the neck is hoary.

607

β. Brown-throated Daurian Crow.—8. β. *C. dauricus fuscescens*.

Is entirely black, the throat and scrag being brown. Lath. ind. orn. i. 154. n. 8. β.

This variety is frequently found among flocks of the former.

608

10. Caledonian Crow.—9. *Corvus caledonicus*. 23.

Is ash coloured, the bill, eyelids, tail, and feet, being black. Lath. ind. orn. i. 154. n. 9.

New-caledonian Crow. Lath. syn. i. 377. n. 7.

Inhabits New-caledonia.—Is about fifteen inches long, of which the tail measures five inches; the bill is a little more than an inch in length; the irides are yellowish.

609

11. Jamaica Crow.—10. *Corvus jamaicensis*. 24.

Is entirely black.

C. jamaicensis. Lath. ind. orn. i. 154. n. 10.—*Cornix jamaicensis*. Briff. av. ii. 22. n. 5.—Corneille de Jamaïque. Buff. ois. iii. 67.—Chattering Crow. Raj. av. 181. Sloan, jam. ii. 298. Lath. syn. i. 377. n. 8.

Inhabits the mountains of Jamaica.—This species, which measures eighteen inches long, lives on berries and beetles; it is entirely black, and differs from the European Crow by its voice, which is a perpetual chatter.

610

12. Jackdaw.—11. *Corvus Monedula* 6.

Is blackish-brown, with a hoary hind head; the front, wings, and tail, being black. Scop. an. 36. n. 38.

C. Monedula. Lath. ind. orn. i. 154. n. 11.—*Cornix garrula*. Klein, av. 59. n. 4. Id. item. 10.

t. 11. f. 2. a. b.—Graculus, Monedula. Gefn. av. 320. t. p. 521.—Monedula, Lupus. Aldr. orn. i. 770. t. p. 771. Raj. av. 40. a. 5. Briff. av. ii. 24. n. 6. Gunth. nest. t. 11. f. inf.—Choucas. Buff. oif. iii. 69. Pl. enl. n. 523.—Taccola. Cetti, uc. fard. 72.—Mullachia nera. Zinnan, uov. 71. t. 10. f. 62.—Dohle, Grave Dohle. Frisch. av. t. 67. Kram. el. 334.—Jackdaw. BRIT. ZOOL. i. n. 81. Lewin, brit. b. i. t. 37. Arct. zool. ii. 251. c. Alb. av. i. t. 14. Will. orn. 125. t. 19. Lath. syn. i. 378. n. 9. sup. 78.

Inhabits Europe and western Siberia.—Is thirteen inches in length; the irides are white.

611 β . Collared Jackdaw.—11. β . *C. Monedula torquata*.

Has a white collar round the neck. Lath. ind. orn. i. 155. n. 11. β . Syn. 379. n. 9. A.

Monedula torquata. Briff. av. ii. 27. n. 6. A.—Helvetian Daw. Charlet, ex. 75. n. 7. onom. 68. n. 7. Jonst. av. t. 16.

Inhabits Switzerland.

612 γ . White Jackdaw.—11. γ . *C. Monedula candida*.

Is entirely white, with a yellowish bill. Lath. ind. orn. i. 155. n. 11. γ . Syn. i. 379. n. 9. B.

Monedula candida. Briff. av. ii. 27. n. 6. B. Schewenkf. av. filef. 305. Rzacz. auet. pol. 396.

Inhabits Poland and Silesia.

613 δ . Black Jackdaw.—11. δ . *C. Monedula nigra*.

Is bright black, the eyes being surrounded with white dots. Lath. ind. orn. i. 155. n. 11. δ . Syn. i. 379. n. 9. c.

Monedula nigra. Briff. av. ii. 28. n. 7.—Choucas noir. Buff. oif. iii. 69. Pl. enl. n. 522.—Chough. Charlet, ex. et onom. 67. n. 3. Sibb. Scot. ill. ii. l. 3. p. 15.—Schwarze Dohle. Frisch, av. t. 68.

Inhabits Scotland, and other parts of Europe.

614 ϵ . Red-billed Jackdaw.—11. ϵ . *C. Monedula erythrorhynchos*.

Is full black; with red bill, legs, and feet. Lath. ind. orn. i. 155. n. 11. ϵ .

Monedula nigerrima. S. G. Gmel. it. iii. 365. t. 39.

Inhabits Persia.

615 ζ . White-winged Jackdaw.—11. ζ . *C. Monedula leucopterus*.

The wings are white, and the bill is somewhat bent.

616 η . Hoary-headed Jackdaw.—*C. Monedula leucocephalus*.

Is entirely black, with the hind head hoary. Phil. transf. lvii. 347. Lath. ind. orn. i. 156. n. 11. ζ .

Inhabits near the Wolga, where it is plentiful in the woods.

617

θ. Brownish Jackdaw.—11. θ. *C. Monedula fuscescens*.

Is brownish, with white shoulders.

Besides these varieties, Dr Gmelin adds one having the bill formed like a pair of pincers, the two mandibles not meeting in the middle, but as that circumstance seems accidental, it is not enumerated in the foregoing list. Jackdaws are easily tamed, and may be taught to speak; in their natural state they are gregarious and loquacious, feeding on insects, grain, and seeds; they breed in steeples, old castles, and high rocks, sometimes in hollow trees near rookeries, and sometimes even in rabbit holes; the female lays five or six eggs, which are paler, smaller, and less spotted than those of the Hooded Crow.

618

13. Jay.—12. *Corvus glandarius*. 7.

The wing coverts are blue, with transverse white and black lines; the body is pale rusty purple dashed with grey, and the head is crested.

C. glandarius. Scop. an. 136. n. 39. Lath. ind. orn. i. 157. n. 18.—*Pica glandaria*. Gefn. av. 700. Aldr. orn. i. 788. t. f. 789. Raj. av. 41. A. 2.—*Garrulus*. Briff. av. ii. 47. n. 1. Nozem. nederl. voy. t. 10. Schaeff. el. t. 39.—*Ghiandaja*. Olin. ucc. 35. Cett. uc. fard. 76. Zinnan. uov. 67. t. 10. f. 58.—Geay. Buff. ois. iii. 107. t. 8. Pl. enl. n. 481.—*Allonskrika*, *Kornskrik*. Faun. suec. n. 90.—*Holzschreyer*, *Eichenheher*, *Nusheher*. Frisch, av. t. 55. Kram. el. 335. Gunth. nest. t. 38.—Jay. BRIT. ZOOL. i. n. 79. Arct. zool. ii. 252. E. Albin. av. i. t. 16. Will. orn. 130. t. 19. Hayes, brit. b. t. 7. Lewin, brit. b. t. 38. Lath. syn. i. 384. n. 19. sup. 79.

Inhabits Europe, and Siberia as far as the Uralian mountains.—Is thirteen inches long, and weighs six or seven ounces; the bill is strong, thick, and black, measuring an inch and a quarter in length, and having a thin black tongue which is cloven at the tip; the chin is white; at each corner of the mouth is a large black spot; the fore-head is white with black streaks; the feathers of the head are very long and can be erected into a crest; the first quill feather of the wing is black, the next nine are ash coloured, their inner webs being dusky, the next six are black, the lower surfaces of their outer webs being tinged with blue, the next two are black, and the innermost is bay tipped with black; the lesser coverts are light bay, the greater coverts are blue barred with white and black, the scapulars are black; the rump is white; the tail has twelve black quills; the legs and feet are pale brown, with large hooked claws: The nest is built on low bushes, being formed of fine fibres of tree roots; in it the female lays five or six dull whitish olive coloured eggs, obscurely mottled with pale brown. The voice is loud and disagreeable; when enticing the young to follow, it resembles the mewing of a cat. Jays are very docile, and may be taught to speak. In summer they are very destructive to cherries and pease, and in autumn and winter they feed on acorns; some say they likewise kill and devour small birds.

619

β. White Jay.—12. β. *C. glandarius albus*.

Is entirely white, with reddish irides. Lath. ind. orn. i. 158. n. 18. β. Syn. i. 386. n. 19. A.

Garrulus albus. Briff. av. ii. 51. n. 1. A. Ger. orn. ii. 44. t. 162.

The place of this variety is not mentioned.

620

14. Carthagena Crow.—13. *Corvus argyrophthalmus*. 25.

Is black, with the breast blue, and the eyes silvery white; the tail being white at the tip, and the bill, legs, and feet, black. Jacquin, beyt. der voeg. 1.

Inhabits Carthagena in South America.—This species is about the size of the Jay; it lives in the thickest parts of the woods, having a clear and not unpleasant whistling voice; it feeds on insects, fruits, and seeds, and when tamed will eat flesh both raw and boiled. The outer parts of the wings are blue, and the face has a blue spot over each eye and another beneath. Mr Latham unites this and the Surinam Crow together as synonymous, notwithstanding the very great dissimilarity in their descriptions as given by Dr Gmelin.

621

15. Doubtful Crow.—14. *Corvus dubius*. 26.

Is rusty brown, the crown and temples being blackish; the neck and belly are yellowish, and the bill, eyes, legs, and feet, black. Jacquin, beytr. der voeg. 2.

Inhabits Carthagena in America.—A white line, rising from the base of the bill, passes backwards through the orbits to the hind head where it joins a similar line from the other side of the head.

622

16. Crested Crow.—15. *Corvus cristatus*. 8.

Is blue; the wing coverts being transversely streaked with black, the neck having a white collar, and the head a blue crest. Lath. ind. orn. i. 158. n. 19.

Garrulus canadensis caeruleus. Briff. av. ii. 54. n. 2. t. 4. f. 2.—*Pica glandaria caerulea*. Klein, av. 61. n. 3. Robert. ic. 1676. t. 14.—Geay bleu de Canada. Buff. ois. iii. 120. Pl. enl. n. 529.—Haubenhaher. Borowlk. nat. ii. 102. t. 9. A.—Blue Jay. Arct. zool. ii. 249. n. 138. Catesb. carol. i. t. 15. Edw. glean. t. 239. f. 1. Lath. syn. i. 386. n. 20.

Inhabits North America.—This species resembles the Jay, but is much smaller, measuring only eleven inches long; it is gregarious, and its voice is not harsh; it feeds on chestnuts, fruits, berries, seeds, and grain, being very destructive to the fields of Maize, and, when in great necessity, devours worms and small serpents; it builds in marshy places, the female laying five or six dull olive eggs spotted with rusty, in May. The head is surmounted by a blue crest; a black streak passes on each side from the base of the bill beyond the eyes; the cheeks, chin, and belly, are white; the breast is pale reddish, like port wine and water; the back is pale purple; the wing coverts and secondary wing quills are rich blue barred with black, the secondaries and one row of the covert feathers having white tips; the tail is long and wedge-like, being barred with blue and black, all the quills having white tips except the two middle ones; the legs and feet are black.

623

17. Stellers Crow.—16. *Corvus Stelleri*. 27.

Is black, the head being crested; the under parts of the body, the wings, and long wedge-like tail, are blue. Lath. ind. orn. i. 158. n. 20.

Stellers Crow. Arct. zool. ii. 249. n. 139. Lath. syn. i. 387. n. 21.

Inhabits the north-west coast of America.—Is about the size of the Jay, measuring fifteen inches long:

long : The bill, neck, and back are black ; the lesser wing coverts are dusky, the rest being rich splendid blue ; the outer webs of the primary wing quills are rich blue, the inner webs being dusky ; the secondaries are rich blue crossed with distant narrow black bars ; the rump, belly, and breast, are dull blue ; the tail is very long, wedge-like, and of a fine glossy blue colour, the middle quills being slightly barred with black.

624

18. Cayenne Crow.—17. *Corvus cayanus*. 9.

Of a somewhat violet-blue colour, the under parts being white ; the front and throat are black, and the tail is tipped with white.

C. cayanus. Lath. ind. orn. i. 160. n. 24.—*Garrulus cayanensis*. Briss. av. ii. 52. n. 2. t. 4. f. 1.—Geay de Cayenne, Blanche-coiffée. Buff. ois. iii. 118. Pl. enl. n. 373.—Cayenne Jay. Lath. syn. i. 388. n. 22.

Inhabits Cayenne.—Is thirteen inches long : The bill, legs, feet, and claws, are grey ; the frontlet, cheeks, and nape of the neck, are black, the fore-head feathers being rigid and erected, and the sides of the head being each marked with three white spots ; the tail is rounded and has a violet tinge.

625

19. White-eared Crow.—*Corvus auritus*.

Is brown ash, and somewhat crested ; the frontlet and chin are black ; the front and each ear are marked with a white spot ; the wing quills are black, with grey edges. Lath. ind. orn. i. 160. n. 25.

Petit Geay de la Chine. Sonner. voy. ii. 188. t. 107.—White-eared Jay. Lath. syn. sup. 83.

Inhabits China.—Is eleven inches long : The bill is black, and scarcely bent ; the irides are reddish yellow ; the crown is bluish ash, having its feathers longish ; the tail is long, rounded, and somewhat fouching ; the legs are long and brownish, the back claw being very strong and much bent.

626

20. Purple-headed Crow.—*Corvus porphyrocephalus*.

Is reddish, the under parts being yellow, the head purplish, and the wing and tail quills black. Lath. syn. sup. 83.

C. purpurascens. Lath. ind. orn. i. 161. n. 26.

Inhabits China.—The bill is lead coloured, the legs and feet being carnation ; the tail is long.

627

21. Macao Crow.—*Corvus macaensis*.

Is greyish ash ; the back, wing coverts, and ventlet, being red ; the forehead, wing quills, and tail, are black ; the secondary wing quills having each two white spots.

C. sinensis. Lath. ind. orn. i. 161. n. 27.—Pie de Macao. Sonner. voy. ii. 187.—Macao Crow. Lath. syn. sup. 84.

Inhabits the island of Macao in China.—Is about a third smaller than the Magpie : The irides are yellowish.

628

22. Rufous Crow.—*Corvus rufus*.

Is red, the under parts being reddish white; the head and neck are brown. Lath. ind. orn. i. 161. n. 28. Syn. sup. 84.

Pie rousse de la Chine. Sonner. voy. ii. 186. t. 106.

Inhabits China.—Is about the size of a Blackbird: The bill, legs, and feet, are black; the greater wing coverts and the secondary wing quills are grey; the primary wing quills and the two middle tail quills are black; the lateral tail quills are half brown half grey, with white tips.

629

23. Nutcracker.—18. *Corvus Caryocatactes*. 10.

Is rusty brown, with small triangular white spots, the wings and tail being black; the tail quills have white tips, those of the middle quills being worn. Scop. an. i. 37. n. 40.

C. Caryocatactes. Lath. ind. orn. i. 164. n. 39. Sepp. vog. t. 3. Ger. orn. ii. 44. t. 163.—*C. cinereus*. Faun. suec. n. 75.—*Caryocatactes*. Gefn. av. 245. Will. orn. 90. t. 20. Raj. av. 42. Nozem. ned. vog. t. 3.—*Merula saxatilis*. Aldr. orn. ii. 630.—*Nucifraga*. Briff. av. ii. 59. n. 1. t. 1. f. 1.—*Casse-noix*. Buff. ois. iii. 122. t. 9. Pl. enl. n. 50.—*Waldstarl*, *Steinheher*. Kram. el. 334.—*Tannenheher*. Frisch, av. t. 56.—*Nuskraehe*. Schranck. nat. xviii. 67.—*Nufs-haeher*. Gunth. nest. t. 38.—*Allonkrika*, *Kornkrika*. Faun. suec. n. 90.—*Nutcracker*. BRIT. ZOOL. ii. app. 625. t. 3. Arct. zool. ii. 252. D. Lewin, brit. b. t. 40. Edw. av. t. 240. Lath. syn. i. 400. n. 38. sup. 82.

Inhabits Europe, Russia, Siberia, and as far as Kamtschatka.—This species, which is very rarely found in Britain, chiefly inhabits pine forests; it feeds on insects, berries, seeds, nuts, acorns, and particularly the kernels of the pine cones; it builds in the hollows of trees, and resembles the Magpie in its manners, being thirteen inches long. The crown of the head and the tail coverts are rusty brown, like the body, but without any white spots; the ventlet is white; the feathers usually found on the nostrils of the species of this genus are frequently wanting in this species; the tongue is double pointed.

630

24. Philippine Crow.—19. *Corvus Balicaffus*. 11.

Is greenish black, with a forked tail. Lath. ind. orn. i. 156. n. 13.

C. nigro-viridens. Briff. av. ii. 31. n. 9. t. 2. f. 1.—*Monedula philippensis*. Ger. orn. ii. 40. t. 154.—*Choucas des philippines*. Buff. ois. iii. 83.—*Balicasse des philippines*. Pl. enl. n. 603.—*Philippine Crow*. Lath. syn. i. 381.

Inhabits the Philippine islands, India, and at the Cape of Good Hope.—Is about the size of the Thrush, and the tail is near four inches long; it sings exceedingly well: The bill, legs, feet, and claws, are black. A variety of this species is sometimes found having the breast clouded with white, and the belly grey.

631

25. New-guinea Crow.—20. *Corvus novae-guineae*. 28.

Is dusky ash, the frontlet, forehead, and tail, being black; the hinder part of the back, the rump, belly, ventlet, and thighs, are white, transversely streaked with black.

C. novae-guineae. Lath. ind. orn. i. 156. n. 14.—*Choucas de la nouvelle Guinée*. Buff. ois. iii. 80. Pl. enl. n. 629.—*New-guinea Crow*. Lath. syn. i. 381. n. 13.

Inhabits

Inhabits New-guinea.—Is about the size of the Jackdaw, measuring twelve inches in length; the bill is blackish; the sides of the head have each a black stroke or bar across the orbits, and another behind the eyes; the wings are blackish, the feathers being edged with white; the legs and feet are short and dusky.

632

β. Blue-headed New-guinea Crow.—*C. novae-guineae caerulefcens*.

Is ash coloured, the head and neck being bluish; the breast and belly are pale rusty.
Lath. ind. orn. i. 156. n. 14. β. Syn. sup. 78.

Inhabits with the former.—Is rather larger, measuring thirteen inches in length: The bill is black; the frontlet is black; the face on each side has a black bar across the orbits; the irides are reddish; the legs and feet are reddish brown, and extremely wrinkly.

633

26. Papuan Crow.—21. *Corvus papuensis*. 29.

Is grey ash, with a white belly, the wing quills being blackish brown. Lath. ind. orn. i. 157. n. 15.

Choucari de la nouvelle Guinée. Buff. oif. iii. 81. Pl. enl. n. 630.—Papuan Crow. Lath. syn. i. 381. n. 14.

Inhabits New-guinea.—Is eleven inches long: The bill is pale yellow, and near an inch long, its upper mandible being angular on the back; an oval black spot on each side furrounds the eyes; the legs and feet are small and ash coloured, with short claws.

634

27. Bare-necked Crow.—22. *Corvus nudus*. 30.

Is black, the feathers on the head being downy; the hind head and part of the neck being generally bare.

Gracula nuda. Lath. ind. orn. i. 190. n. 4.—Colnud de Cayenne. Buff. oif. iii. 82. Pl. enl. n. 609.—Bare-necked Crow. Lath. syn. i. 382. n. 15.

Inhabits Cayenne.—Is about the size of a Jackdaw: The bill is yellowish, tipped with black, its base being broad and dirty blue, with pervious nostrils; some of the outer wing quills are slightly greyish; the legs and feet are yellow; the tail is equal at the end.

635

28. Bald Crow.—23. *Corvus calvus*. 31.

Is rusty brown, the front and crown being bald. Lath. ind. orn. i. 153. n. 6.

Choucas chauve. Buff. oif. iii. 80. Pl. enl. n. 521.—Bald Crow. Lath. syn. i. 386. n. 16.

Inhabits Cayenne.—Is thirteen inches long: The bill is dirty black, and somewhat bent; the colour of the under parts of the body and of the tail coverts is rather paler than on the upper parts; the legs and feet are dusky.

636

29. Pacific Crow.—24. *Corvus pacificus*. 32.

Is ash coloured, the under parts being bay or reddish; the hind head, scrag, wings, and tail, are black, the two last being tipped with white.

C. pacificus. Lath. ind. orn. i. 157. n. 16.—Pacific Crow. Lath. syn. i. 383. n. 17.

Inhabits the islands in the Pacific ocean.—Is ten inches and a half long; the bill, legs, feet, and claws, are black; the front and chin are paler than the rest of the body; the two middle tail quills are entirely black.

637

30. Tropic Crow.—25. *Corvus tropicus*. 33.

Is shining black, with a rounded tail, the ventlet and sides of the belly being spotted with white. Lath. ind. orn. i. 157. n. 17.

Tropic Raven. Cook's last voy. iii. 119 ?—Tropic Crow. Lath. syn. i. 384. n. 18.

Inhabits Owhyhee, one of the Sandwich islands.—Is twelve inches and a half long; the bill is broad at the base, and measures an inch and a half in length; the black of the upper parts of the body is very splendid, on the wings and tail it has a greenish cast, and the lower parts of the body are dull black; the legs, feet, and claws, are black.

638

31. Red-billed Crow.—26. *Corvus erythrorhynchos*. 34.

Is brown, with a violet tinge above, and whitish underneath; the front, under part of the throat and breast, being black; the tail is wedge-like, having a violet tinge at the base, its middle black, and tip white. Lath. ind. orn. i. 161. n. 29.

Geay à bec rouge. Buff. ois. iii. 115. Pl. enl. 622.—Red-billed Jay. Lath. syn. i. 290. n. 24.

Inhabits China.—Is about the size of the Jay: The front, throat, and breast are extremely black; the hind head and scrag are light grey; the primary wing quills resemble the tail quills, being tinged with violet at the roots, black in the middle, and tipped with white; the bill, legs, and feet, are red; the claws are long, hooked, and whitish, with black tips.

639

32. Chinese Crow.—27. *Corvus sinensis*. 35.

Is reddish above, with a brown crown, and white eyebrows; the tail is brown and wedge-like, with a narrow transverse black band near the tip, and having a roundish dirty white spot near the tip of each quill.

Chinese Jay. Lath. syn. i. 390. n. 25.

Inhabits China.—Resembles the Jay both in size and general manners: The bill is lead coloured, as are the legs and feet; the face has a black line crossing the orbits; the temples are each marked with a spot of mixed white and bluish surrounded by a black circle; the chin is white; the secondary wing quills are brown.

640

33. Siberian Crow.—28. *Corvus sibiricus*. 36.

Is ash coloured above and rusty orange underneath, the wing quills and two middle tail quills being ash coloured, and the rest of the tail quills orange. Lath. ind. orn. i. 159. n. 22. β.

Geay de Siberie. Buff. ois. iii. 118. Pl. enl. n. 608.—Siberian Jay. Lath. syn. i. 391. n. 26.

Inhabits

Inhabits Siberia.—Is ten inches long : The bill is dusky; the front, chin, and throat, are pale ash; the crown is brownish black, and is somewhat crested; the rump is rusty orange coloured; the legs and feet are ash coloured. Mr Latham considers this species as a variety of the Rock Shrike, N^o. 324. which he places among the Crows, in his Index Ornithologicus.

641

34. Peruvian Crow.—29. *Corvus peruvianus*. 37.

Is pale green above and pale yellow underneath; having a white crown, a black narrow band down the chin and throat; and the three outer tail quills on each side being yellow.

C. peruvianus. Lath. ind. orn. i. 161. n. 30.—Geay de Perou. Buff. ois. iii. 116. n. 2. Pl. enl. n. 625.—Peruvian Jay. Lath. fyn. i. 391. n. 27.

Inhabits Peru.—Is eleven inches and a half long : The bill, legs, and feet, are blackish; the base of the bill is surrounded by a blue line; the whole under part of the throat is silky and perfectly black; the tail is very long and wedge-like.

642

35. Yellow-bellied Crow.—30. *Corvus flavus*. 38.

Is greenish brown above and yellow underneath; the chin and eyebrows being white, and the wings and tail reddish brown.

C. flavigaster. Lath. ind. orn. i. 162. n. 31.—Garlu, Geay à ventre jaune. Buff. ois. iii. 119. Pl. enl. n. 249.—Yellow-bellied Jay. Lath. fyn. i. 392. n. 28.

Inhabits Cayenne.—Is nine inches long : The bill is black; the crown of the head is marked with a longitudinal golden yellow streak; the legs and feet are short, slender, and leaden coloured, or blackish.

643

36. Blue Crow.—32. *Corvus cyaneus*. 39.

Is ash coloured, with a shining black crown, the wings and tail being blue; the tail quills are very long, and tipped with white. Pall. it. iii. 694. n. 7.

C. cyanus. Lath. ind. orn. i. 159. n. 21.—Blue Crow. Lath. fyn. i. 394. n. 30.

Inhabits Dauria, in the east of Russia.—This species is about the size of the Rock Shrike, N^o. 324. and resembles the Magpie in manners and general appearance; it is clamorous, shy, and cunning; it builds in shrubs and willows; it migrates in flocks into Dauria in April, but we are not told whence it comes : The under parts of the body are rather paler than the upper; the blackness of the crown reaches to the nape of the neck; the tail is wedge-like and very long, the middle quills being tipped with white.

644

37. Magpie.—33. *Corvus Pica*. 13.

Has a long wedge-like tail, and is varied with black and white. Scop. an. i. 38. n. 41.

C. Pica. Lath. ind. orn. i. 162. n. 32. Ger. orn. ii. 40. t. 155. Borowsk. nat. ii. 109. n. 10. Schaef. el. t. 56.—Pica. Nozem. neder. vog. t. 2.—Pica varia, Pica caudata. Gefn. av. 695. Aldr. orn. i. 784. t. p. 785. Johnst. av. 44. t. 17. Briff. av. ii. 35. n. 1.—Pica rusticorum. Klein, av. 60.

■. 1. Id. stem. 10. t. 12. f. 1. a. b. c. Id. ov. 22. t. 8. f. 3.—Pie. Buff. oif. iii. 85. t. 7. Pl. enl. n. 488.—Magpie, Pianet, or Payet. BRIT. ZOOL. i. 225. n. 78. D^o. ill. 77. t. D. f. 2. Arct. zool. ii. 247. n. 136. Hayes, brit. b. t. 8. Lewin, brit. b. t. 39. Albin, av. i. t. 15. Raj. av. 41. t. 1. Will. orn. angl. 127. t. 19.—Skata, Skiura, Skara. Faun. suec. n. 92.—Aelfter. Frisch, av. t. 58. Gunth. nest. t. 53.—Gazza, Putta. Zinnan. uov. 66.

Inhabits Europe, North America, Northern Asia, Japan, and Madeira.—This common but very beautiful bird is about eighteen inches long, twenty-four in extent of wings, and weighs about nine ounces; it is crafty, restless, noisy, quarrelsome, and shy, but may be tamed, and learns to imitate the human voice; it frequents towers, villages, and fields; Dr Gmelin says that it dislikes the woods, but in this he has certainly been misinformed, as it is very common in the woods of Britain, and builds in trees, covering the nest very artificially with thorns, leaving a narrow entrance; it feeds almost on any kind of vegetable or animal substance, is very destructive to gardens and orchards, and even destroys chickens: The black colour of the body and tail is most beautifully glossed with green and purple: The eggs are brownish-green, thickly interspersed with black or dusky spots.

645

β. Sooty Magpie.—*C. Pica fuliginosa*.

Is varied with sooty-black and white, having red eyes. Mus. carlf. iii. t. 53. Lath. ind. orn. i. 163. n. 32. δ.

This variety was found, in 1781, in the parish of Padasjoki, in the province of Tavastland in Sweden: The bill, legs, and feet, are black.

646

γ. Streaked Magpie.—*C. Pica striata*.

Is longitudinally streaked on the body with black and white. Lath. ind. orn. i. 163. n. 32. γ.

This variety is preserved in the Leverian Museum.

647

δ. White Magpie.—33. β. *C. Pica candida*.

Is entirely white. Lath. ind. orn. i. 162. n. 32. β.

Pica candida. Briff. av. ii. 39. n. 1. A. t. 3. f. 1.

We are not informed where this variety was found, but it is probable that both it and the two former are merely accidental.—T.

648

38. Senegal Crow.—34. *Corvus senegalensis*. 14.

Is black with a violet gloss, having brown wing and tail quills edged with black, and a wedge-like tail. Lath. ind. orn. i. 163. n. 33.

C. afer. Syft. nat. ed. Gm. i. 273. n. 12.—*Pica senegalensis*. Briff. av. ii. 40. n. 2. t. 3. f. 2.—Pie du Senegal. Buff. oif. iii. 97. Pl. enl. n. 538.—Senegal Crow. Lath. fyn. i. 394. n. 31.

Inhabits Africa, near the river Senegal.—Is about the size of the Magpie, measuring fourteen inches long: The under parts of the body are dirty black; the bill, legs, and feet, are black; the black edges

edges of the wing and tail quills have the same purple gloss that enlivens the plumage of the head, neck, and back.

649

39. Caribbean Crow.—35. *Corvus caribaeus*. 40.

Is rusty above and white underneath, the neck being blue with a white collar. Lath. ind. orn. i. 163. n. 35.

Pica antillarum. Raj. av. 152.—*Pica perfica aldrovandi*? Raj. av. 42. n. 6. Will. orn. 90. n. 1.—*Galgulus antillarum*. Briss. av. ii. 80. n. 6.—*Pic des Antilles*. Buff. ois. iii. 101.—*Persian Pie*. Will. orn. angl. 132. n. 6. § 2.—*Caribbean Crow*. Lath. syn. i. 395. n. 32.

Inhabits the West India islands.—Is about the size of the Magpie: The bill, legs, and feet are red; the head is blue, having a longitudinal white band beginning at the front along the top of the head and neck to the bottom of the scrag; this in *males* is transversely streaked with black; the rump and upper tail coverts are yellow; the tail is wedge-like, of a blue colour, and streaked with white; the wing quills are greenish blue; the lesser coverts are chestnut, the middle coverts green, and the greater coverts blue, with whitish shafts and edges: In the *female* the white line on the head has no black streaks, and the greater wing coverts are green, with white shafts and edges.

650

40. African Crow.—36. *Corvus africanus*. 41.

Is brown above and somewhat ash coloured underneath, the head and neck being purple, and the tail wedge-like, with a white tip. Lath. ind. orn. i. 163. n. 34. Syn. i. 396. n. 33.

Inhabits Africa.—Is twenty-two inches in length: The bill, legs, and feet, are red; the head is somewhat crested; the feathers on the hind head have grey tips; the outer edges of the wing quills are bluish.

651

41. Mexican Crow.—37. *Corvus mexicanus*. 42.

Is entirely bluish black. Lath. ind. orn. i. 164. n. 36. Syn. i. 396. n. 34.

Pica mexicana major. Briss. av. ii. 43. n. 4.—*Hoitzanatl*. Raj. av. 162.—*Hocifana*. Buff. ois. iii. 103.—*Criard*. Pernet. voy. i. 185.

Inhabits Mexico and New-spain.—This species, which is about the size of a Jackdaw, lives near the towns, and is very restless and perpetually chattering; the bill, legs, feet, and claws, are black.

652

42. Surinam Crow.—38. *Corvus surinamensis*. 43.

Is shining green, with a blue hind head, having a pale green spot on the scrag and two others on each side of the head, one above and the other below the orbit.

C. argyrophthalmus. Lath. ind. orn. i. 164. n. 38.—*Surinam Daw*. Brown, illustr. t. 10.—*Surinam Crow*. Lath. syn. i. 397. n. 35. syn. 81.

Inhabits Surinam.—Is as large as the Carrion Crow: The green colour of the body is deep, shining, and changeable; the primary wing quills are dusky, with blue tips; the tail is dusky; the bill is blackish or dusky; the legs and feet are carnation red. Mr Latham conjoins this with the Carthagena Crow, N°. 619. which seems to differ very essentially; he adds that it is easily tamed, and has a monotonous voice.

653

43. Zanoë Crow.—39. *Corvus Zanoë*. 44.

Is blackish, the head and neck being brownish, and the tail very long. Lath. ind. orn. i. 164. n. 37.

Pica mexicana minor. Briff. av. ii. 44. n. 5.—Tzanahoei. Raj. av. 162.—Zanoë. Buff. oif. iii. 106.—Lesser mexican Crow. Lath. fyn. i. 397. n. 36.

Inhabits New-spain.—This species resembles the Magpie in size, manners, cunning, chattering, and docility: The bill, legs, and feet, are black.

654

44. Short-tailed Crow.—40. *Corvus brachyurus*. 15.

Is green above and tawny underneath, the head being marked with alternate brownish orange and white bars; the tail is extremely short. Lath. ind. orn. i. 166. n. 43.

Merula viridis moluccensis. Briff. av. ii. 316. n. 56. t. 32. f. 1.—*Pica indica vulgaris*. Raj. av. 195. t. 1. f. 10.—Breve de Bengale. Buff. oif. iii. 414.—Merle de Bengale. Pl. enl. n. 258.—Short-tailed Crow. Lath. fyn. i. 398. n. 37.

Inhabits the islands of the Indian ocean.—Is only six or seven inches long: The bill is greyish brown; the head is black with alternate streaks of white and tawny or brownish-orange, the corners of the mouth being orange coloured, and the irides whitish; the chin, wing quills, and tail are black, the latter being tipped with green; the legs and feet are orange, with dirty red claws.

655

β. Philippine Short-tailed Crow.—40. β. *C. brachyurus philippensis*.

Is green, the head and neck being black, the rump and wing coverts bluish green, and the tail black, with rose coloured under coverts. Lath. ind. orn. i. 166. n. 43. β.

Merula viridis atricapilla. Briff. av. ii. 319. n. 57. t. 32. f. 2.—Breve des Philippines. Buff. oif. iii. 413. n. 1.—Merle des Philippines. Pl. enl. n. 89.

Inhabits with the former.

656

γ. Bengal Short-tailed Crow.—40. γ. *C. brachyurus bengalensis*.

Is green above and yellowish underneath; the head and neck being black, streaked with white and orange, and the wing and tail quills black. Lath. ind. orn. i. 167. n. 43. γ.

Coturnix capensis. Klein, av. 115. n. 2.—Breve. Buff. oif. iii. 413. n. 2.—Madras Jay. Raj. fyn. 195. n. 12. t. 1. f. 10.—Bengal Quail. Alb. av. i. t. 31.—Short-tailed Pie. Edw. glean. t. 324. Lath. fyn. i. 399. n. 37. B.

Inhabits India.—The wing quills, in this variety, are white at the base and yellow at the tips, and the tail quills have green tips.

657

δ. Madagascarc Short-tailed Crow.—40. δ. *C. brachyurus madagascariensis*.

Is green above and yellowish underneath; the head being blackish brown, and the nape yellowish. Lath. ind. orn. i. 167. n. 43. δ.

Breve

